FOREWORD

Foreword

We are united by missions that protect and improve the lives of individuals, families, and communities. Where Americans live, work, play, and learn directly impacts the health and vitality of our society. Evidence of growing inequalities in access to health care and disparities in health outcomes point to an immediate need for solutions that address the social, economic, environmental, and cultural determinants of health.

For racial and ethnic minorities, poor, and other underserved populations in the United States, the existence of health disparities is undisputed. In an era of increasing fiscal responsibility, an important part of the solution to ending disparities is to work across the public and private sectors using common objectives. Since the factors that affect health are varied and complex, the response must be equally varied and intricate. Understanding current health trends and realizing the social and economic benefits of health equity, the question that confronts us is: What actions can be taken to improve outcomes while concurrently improving the effectiveness and efficiency of our collective efforts and investments?

The vision for the National Partnership for Action (NPA) to End Health Disparities was shaped by the voices of individuals who shared their *lived* experiences and expertise through a series of regional conversations and meetings held by the Office of Minority Health, U.S. Department of Health and Human Services, in 2007-2009. The NPA brought together diverse organizations and individuals who shaped priority strategies for improving health and health outcomes of African Americans, Hispanics, Asian Americans, Native Hawaiians and Pacific Islanders, and American Indians and Alaska Natives.

This collaborative process involved individuals; community- and faith-based organizations; tribal leaders; healthcare providers; health system representatives; academic and research faculty; employers; local, state, tribal, and federal public health officials; representatives from housing, education, transportation, veteran affairs, agriculture, environmental protection, commerce, and defense; and national associations. Through spirited dialogue, the NPA provided a forum for identifying and defining a strategic landscape of actions to advance the elimination of gaps in health care and health status.

Changing Outcomes - Achieving Health Equity, The National Plan for Action, and ten parallel Regional Blueprints for Action are products of the NPA. Twenty common strategies were defined and organized around five core areas for improvement: awareness, leadership, health and health system experiences, cultural and linguistic competency, and coordination of research/evaluation. The Plan provides a roadmap a starting point - of the collaborative strategies and collective actions. The information provided should serve as a menu from which specific actions at the neighborhood/area, community, state, tribal, regional, and national levels can be advanced.

► FOREWORD

We extend our appreciation to the individuals and organizations that contributed their time and energy; the Federal Interagency Management Team for their thoughtful leadership; the Implementation and Evaluation Teams for their guidance on accountability, sustainability, and methods for evaluating progress; and to the National Visionary Panel and National Health Disparities Plan Consensus Meeting participants for their expertise and feedback.

It is time to refocus, reinforce, and repeat the message that health disparities exist, that achieving health equity benefits all Americans, and that cooperative, leveraged, and evidence-based actions are necessary to reduce inequalities in health and health outcomes. It is time for action—together we can, together we will.

ACKNOWLEDGEMENTS

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More than two years ago, the Office of Minority Health (OMH) began meeting with communities and various organizations to begin developing strategies and actions to systematically address health disparities. These meetings led us to this National Plan for Action.

We are indebted to the many individuals who contributed their ideas, time, energy, and/or expertise during the community voices meetings; Regional Conversations; 2006 and 2009 National Leadership Summits on Eliminating Racial and Ethnic Disparities in Health; the National Visionary Panel meeting; the National Health Disparities Plan Implementation and Evaluation meetings; the National Health Disparities Plan Consensus meeting; and myriad other meetings that led to the community-inspired strategies found within this Plan.

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There has been significant global attention placed on the risk factors for adverse health outcomes — factors that may long predate the appearance of a disease state. Such factors are those that relate to social constructs rather than medical constructs and are fundamentally and particularly toxic to health. Well known factors include low socioeconomic status, low educational status, and inadequate access and utilization of quality health care. There are other adverse determinants of health as well. Examples include residence in geographic areas that have poor environmental conditions (e.g., violence, poor air quality, and inadequate access to healthy foods), racism, inadequate personal support systems, and limited literacy or limited English proficiency. These determinants are often associated with racial minority, ethnic minority, and underserved communities.

Margaret Chan, Director-General of the World Health Organization (WHO), drew attention to the urgent worldwide problem of health inequities and its profound consequences when she said, "Health inequity really is a matter of life and death." The significance of social determinants of health has increasingly become a matter of discussion and research, along with the recognition that, although social factors are at the root of many of the inequities in health and health care worldwide, they are not necessarily inevitable and are amenable to intervention. In 2005, WHO formed an independent Commission on Social Determinants of Health (CSDH) to make the case that health status is of concern to policymakers at all levels (not just health) and to "link knowledge with action" regarding how these factors operate and how they can be changed to improve health and reduce health inequities.

The 2008 report of the CSDH,⁴ *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health*, denoted the powerful link between social factors and health. The report emphasizes that social and economic policies directly impact the health and well-being of those who live and work under them. The report further suggests that interventions and policies must be based on evidence and result in action, and they must address daily living conditions and issues related to power, money, and resources.

"Health inequity really is a matter of life and death."

- Margaret Chan, MD, MPH

Director-General,

World Health Organization, 2008

WHO defines the social determinants of health as the "conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels, which are in and of themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities." Operatively, health inequities often play out as differences in opportunities for healthy lifestyles, differences in quality of care within the healthcare system, and differences in access to the healthcare system (both preventive and curative care).

In the United States, there are numerous examples of health and healthcare disparities by race, ethnicity, socioeconomic status or other factors. Several examples include disparities in cardiovascular disease, diabetes, HIV/AIDS, infant mortality, oral health, mental health, and healthcare quality and access.

Acknowledging that persistent health disparities are the manifestation and interplay of complex factors is critical to solving these problems. It is only as we develop a fuller understanding of the scope and magnitude of factors affecting health outcomes, and evidence for what works to reduce disparities, that the most effective advancement of appropriate policy and intervention strategies can occur. This will require the combined efforts of governments, academia, institutions, businesses, humanitarian and faith-based organizations, and individuals working across the entire spectrum of public, private, community and individual enterprise.

Beyond the heavy burden that health and healthcare disparities represent for the individuals affected, there are additional social and financial burdens borne by the country as a whole. These burdens constitute both ethical and practical mandates to reduce health disparities and achieve health equity.

DEFINITIONS

The terms "health inequality," "health disparity," "healthcare disparity," "health equity," and "health inequity" are widely used, often without clarification of meaning. Therefore, in an effort to distinguish between these terms, in this *National Plan for Action*:

- Health inequality is the "differences in health status or in the distribution of health determinants between different population groups."
- Health disparity is a particular type of health difference that is closely linked with social or economic disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater social and/or economic obstacles to health and/or a clean environment based on their racial or ethnic group, religion, socioeconomic status, gender, mental health, cognitive, sensory or physical disability, sexual orientation, geographic location, or other characteristics historically linked to discrimination or exclusion.
- Healthcare disparity relates to "racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of interventions."
- ◆ Health equity is attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable

inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities.

◆ The terms "health inequity" and "health disparity" will be used interchangeably.

HISTORICAL BRIEF: WHAT THE PAST HAS TAUGHT US

The 1985 Report of the Secretary's Task Force on Black and Minority Health (Heckler Report) was the key federal effort to identify and draw national attention to the tragedy of minority health disparities. The report, issued by then HHS Secretary Margaret Heckler, formally detailed for the American consciousness the existence and extent of racial and ethnic health disparities for African Americans and three other identified minority groups (defined during that time as Hispanics, Asians/Pacific Islanders, and Native Americans, including American Indians, Alaska Natives, and Native Hawaiians). With the exception of information on African Americans, there were very few data available in 1985 about the health and well-being of racial and ethnic minority populations.

Nevertheless, the *Heckler Report* concluded that similar patterns of health disparities existed for all the identified minority groups and called out six areas of particular concern: cancer, cardiovascular disease/stroke, diabetes, infant mortality, chemical dependency, and homicide. Between 1979 and 1981, these six conditions together accounted for more than 80 percent of deaths in excess of that of the White population for African Americans and the other identified minority populations.

In his letter introducing the report, Task Force Chairman Thomas E. Malone (then Director of the National Institutes of Health [NIH]) expressed the hope that the report should serve "not only as a standard resource for department-wide strategy, but as the generating force for an accelerated national assault on the persistent health disparities" In fact, the report did generate a plethora of public and private programs, entities, and initiatives aimed at reducing the disparity gap, including the immediate formation of the federal Office of Minority

"The real challenge lies not in debating whether disparities exist, but in developing and implementing strategies to reduce and eliminate them."

Alan R. Nelson, MD, Chair, IOM
 Committee on Understanding
 and Eliminating Racial and Ethnic
 Disparities in Health Care

Health (OMH). However, while there have been dramatic improvements to both the healthcare delivery system and health outcomes (e.g., mortality and morbidity rates) for all populations in the United States since 1985, 10,11,12 many of the findings and recommendations of the *Heckler Report* are still pertinent. Health disparities still exist and are still serious. 13,14

The evidence of persistent and pervasive health and healthcare disparities is clearly articulated in the 2002 landmark report of the Institute of Medicine (IOM), *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (Unequal Treatment Report).*¹⁵ Upon the release of the report, ¹⁶ the IOM committee chair noted, "The real challenge lies not in debating whether disparities exist, but in developing and implementing strategies to reduce and eliminate them." The *Unequal Treatment Report* identified multiple contributing factors, including the organization and operation of healthcare systems, the attitudes and behavior of patients, and the biases of healthcare providers.

The recommendations in the *Heckler Report* are mirrored or complemented by the *Unequal Treatment Report* and are just as pertinent today. The Secretary's Task Force recommended six strategies to effect change: (1) promote health education; (2) improve access to care; (3) increase patient-provider interactions; (4) build capacity in the non-federal sector; (5) improve sources of health data; and (6) increase health disparities research.

Recommendations in the *Unequal Treatment Report* included avoiding fragmentation of health plans along socioeconomic lines; collecting and reporting data on healthcare access and utilization by patient race, ethnicity, socioeconomic status, and primary language; conducting further research to identify sources of racial and ethnic disparities; assessing promising intervention strategies; and implementing patient education programs to increase patients' knowledge of how to best access care and participate in treatment decisions. The report also provided important insights into the progress of setting and meeting local, state, regional, tribal, and national health disparities goals and on effectively measuring and enhancing our collective knowledge of health and healthcare disparities.

Nearly a quarter of a century ago, the Secretary's Task Force "acknowledged that the factors responsible for health disparities are complex and defy simplistic solutions." This analysis is just as fresh today as those who conduct health disparities research and/or implement it in practice struggle to identify and combat the medical, social, economic, and other factors that foster adverse health outcomes. New approaches and new partnerships are immediately needed to close the health gap for minority communities and the nation.

LOOKING FORWARD

Recent demographic, health, research, technical, and economic trends in the United States reflect a growing need to reevaluate the health and healthcare needs of the nation's at-risk populations. These trends provide both challenges and opportunities for devising new methods of attacking the persistent problem of health disparities. Awareness of these trends and of the economic benefit of addressing health disparities provides a solid rationale for policy decisions, policy improvements, resources for future programs, and research focused on areas where healthcare gaps and differences in social conditions persist.

The following are examples of the challenges and opportunities that will significantly impact efforts to reduce health and healthcare disparities in the United States:

Growing minority populations

Minority populations now comprise 34 percent of the total U.S. population, are increasing in number faster than the White population, and are expected to represent 40 percent of the population by the year 2030. The District of Columbia and four states (Hawaii, New Mexico, California, Texas) are now "majorityminority" states, meaning that more than 50 percent of their population is made up of people other than single-race, non-Hispanic Whites. Addressing the health needs of our minority populations has always been an ethical mandate. As the aggregate of our various minority populations moves toward becoming a majority of the country's populace, health equity also becomes a practical mandate. If health inequities are not adequately addressed, everyone suffers—through shared loss of economic capital, loss of human intellectual and leadership capital, and social instability.

Diversity of minority populations

Immigration into the U.S. continues and has intensified, as a wide variety of the world's races, nationalities, and ethnicities become part of the American melting pot. In the last decade or so, a greater awareness has developed regarding the importance of collecting reliable data on specific racial and ethnic subpopulations beyond the long-standing categories of White, African American, Asian, and Native American.¹⁹ Combining minority subgroups into generalized racial or ethnic

New approaches and new partnerships are immediately needed to close the health gap for minority communities and the nation.

categories for data collection can mask dramatic variability in outcomes and thereby inhibit the design of effective, targeted interventions. For example, health outcomes vary dramatically for the populations of the U.S. territories, including the residents of Puerto Rico (who are often placed in the general category of "Hispanics/Latinos"), the residents of the U.S. Virgin Islands (who are often placed in the general category of "African Americans"), and the residents of Guam, American Samoa and the Northern Mariana Islands (who are often placed in the general category of "Pacific Islanders"). The diversity of our communities and their languages also demands a greater emphasis on recruiting culturally and linguistically competent healthcare providers into the workforce.

Wider and deeper minority health constituency

In the years since the release of the *Heckler Report*, a large number of minority health–related programs, organizations, advocacies, and initiatives have come into existence at all levels of society—federal, tribal, state, local, community, faith-based, public, private, academic, and business.²⁰ This sizeable and talented workforce is a significant and sometimes inadequately tapped resource for advancing health equity.

Increased emphasis on persons with disabilities

There are more than 54 million individuals (19 percent of the population) in the United States who experience some level of disability. They became protected against discrimination on the basis of disability through the 1990 Americans with Disabilities Act and its later amendments. A key target for reducing health disparities for disabled Americans is to increase accessibility across a broad spectrum of needs. Healthcare access in this context has the particular meaning of enabling disabled persons to access the functionality, benefits, services, and information provided by healthcare systems to the same extent as those without disabilities. Such access includes the use and development of various assistive technologies. The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities encourages healthcare providers to treat the whole person; educators to teach about disability; the public to see an individual's abilities; and communities to ensure accessible health care and wellness services for persons with disabilities.

Greater knowledge base

Due to the growth of the constituency for minority health, a parallel growth has taken place in the health disparities knowledge base as evidence-based research, practical experience, and best-practice inquiries continue to be important avenues for finding solutions.

Increased emphasis on data collection and quality improvement

As the American dialogue on health disparities has continued, the conversation has included, to an increasing extent, the integration of quality improvement measures as a strategy to deal with health disparities. For example, the Agency for Healthcare Research and Quality (AHRQ) within HHS produces an annual *National Healthcare Quality Report* (NHQR)²⁴ and a *National Healthcare Disparities Report* (NHDR)²⁵ that track quality measures of minority health from multiple national databases. The Centers for Disease Control and Prevention (CDC),²⁶ the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO),²⁷ and the National Quality Forum (NQF),²⁸ among others, also provide useful statistical databases. The HHS Office on Women's Health also provides state- and county-level data for all 50 states, the District of Columbia, and U.S. territories and possessions by gender, race, and ethnicity through their Quick Health Data Online. Improvements in data collection and health information technology hold potential for supporting evidence-based research to identify and solve health inequities.

Major advances in communication and information technologies

The increase of computing power and the development of the Internet and other enhanced communication and information technologies have led to the enhanced capability to collect, analyze, store, and access massive amounts of data (e.g., products of the U.S. Census Bureau, AHRQ, CDC, and expanded use of Health Information Technology [HIT]). These technologies offer new ways to communicate health information widely and effectively to the increasingly "wired" new generation of young people. Technologies such as text messaging, cell phones, and social-networking websites offer great promise for innovative interactions with diverse, difficult-to-engage, or youthful populations.

Growing but limited resources

Given the increasing demands on health dollars and resources in the current economic climate, the necessity for judicious, prudent, leveraged, and cooperative use of resources is undeniable.

ECONOMICS OF HEALTH

The Bureau of Labor Statistics predicts that 41.5 percent of the U.S. workforce will be members of racial and ethnic minority groups within the next decade.²⁹ The changing demographics of the American workforce, the impact of poor health on worker productivity, and the cost of not preventing disease and of delayed care create an urgent and immediate need to address health disparities. To put it simply, the ability of the United States to remain competitive in the global marketplace requires businesses and organizations to ensure that employees—their greatest single asset and resource—remain healthy.

"We need to do all we can to close this gap and empower our communities to meet and master their health challenges in ways that acknowledge and celebrate our diverse American cultures."

Senator Edward M. Kennedy
 Message to Participants,
 Third National Leadership
 Summit on Eliminating Racial
 and Ethnic Disparities
 February 25, 2009

The United States spends more on health care than does any other industrialized nation. In spite of these expenditures, America has fallen to last place out of the 19 industrialized nations in premature deaths.³⁰ Healthcare costs surpassed \$2.2 trillion in 2007, representing more than 16 percent of the gross national product. In less than two decades, healthcare costs have almost tripled from \$714 billion in 1990. In 2007, healthcare expenditures experienced an annual growth of 6.1 percent, far exceeding average salary increases, inflation, and overall growth in national income.³¹ Employer-sponsored health coverage premiums have increased by 119 percent since 1999, placing significant cost burdens on both employers and employees.³²

The contribution of healthcare disparities to the rising cost of health care is often unrecognized, as is the potential for reducing healthcare costs through reduction of health disparities. A recent study, *The Economic Burden of Health Inequalities in the United States*, issued by the Joint Center for Political and Economic Studies in September 2009, provides insight to the costs associated with *not* eliminating health disparities. Using data from the Medical Expenditure Panel Survey (MEPS) for the years 2002 – 2006, the study estimated direct and indirect costs. A model was developed using 2002 data, which was then applied to estimate potential reductions in health care expenditures using 2003 to 2006 MEPS data. Additionally the study used data from the *National Vital Statistics Report* to estimate the number of deaths due to health disparities in each age group. The study concluded that "the combined costs of health inequalities and premature death in the United States were \$1.24 trillion". Based on this study, the cost of health disparities will only continue to rise exponentially in the near future. Addressing health disparities is an obvious point of intervention that can provide both a financial and an ethical payoff.

Economic Burden of Health Inequities in the United States, 2003 2006				
Combined costs of health inequalities and premature death	\$1.24 trillion			
Potential reduction in the indirect costs associated with illness and premature death if minority health inequalities were eliminated				
Potential reduction in direct medial care expenditures if minority health disparities were eliminated	\$229.4 billion			
Percent excess direct medical care expenditures for African Americans, Asians, and Hispanics that were due to health inequalities	30.6%			
Source: T. LaViest, D. Gaskin, and P. Richard, The Economic Burden of Health Inequalities in the United States, 2009. Findings of a commissioned repo from the Joint Center for Political and Economic Studies.				

In the workplace, insufficient attention has been paid to addressing issues related to health disparities and the impact that these health disparities have on business performance.³³ The private sector is beginning to realize that there are real bottom-line costs associated with health disparities and work-related causes of health disparities (e.g., workplace injuries). According to the Integrated Business Benefits Institute, the full cost of employee absences is more than four times the total medical payment. Absence-related costs alone amount to 76 percent of net income when considering lost productivity from absence and wage-replacement benefits.³⁴ The literature also shows that the higher the number of health risks an employee has, the higher the number of excess claims for each risk, the higher the number of days absent, and the higher the percentage of worker's compensation claims filed.³⁵

Often employers are not aware of health disparities and the adverse impact on their employees. Consequently, they miss the dual opportunity of improving worker health and reducing insurance and healthcare costs. The National Business Group on Health completed a member survey in 2008 to determine employer awareness of health disparities. Employers were surveyed about diversity strategies, awareness of disparities as drivers of direct and indirect costs, and actions taken to reduce disparities. Following are the key findings of the survey:

WORKPLACE AWARENESS OF HEALTH DISPARITIES: Findings of a 2008 NBGH Survey

- ◆ Little initiative has been taken to track disparities among employees.
- ◆ The majority of employers were unaware of disparities as a business issue.
- Only one-third of participants thought reducing disparities was an important or very important issue.
- ◆ Few employers have undertaken efforts to make employees aware of strategies they have implemented to reduce healthcare disparities.
- ◆ The potential for reducing disparities was not generally a criterion for selecting health plans.
- ◆The top barrier to implementing a disparities reduction program was lack of data identifying the problem.

Given these findings, it is not surprising that employers are largely neither equipped nor prepared to ensure that all employees receive information about their personal and family health care in ways that are culturally and linguistically appropriate. The time and money spent on ensuring employee health is a worthwhile investment. Healthier workers mean lower healthcare costs. Additionally, a healthy workforce leads to improved productivity as well as employee satisfaction and retention.³⁷

The value of interventions that protect and improve health (e.g., changing local environments to create opportunities for physical activity, strengthening the enforcement of laws preventing sales of alcohol to minors, etc.) continue to be assessed. Further research, as well as other national initiatives, will help pave the way for policymakers, public health agencies, health plans, community organizations, schools, and businesses to maximize the impact of investments on health.

The importance of preventing disease and promoting health cannot be overstated. Significant national reports note that the health system's emphasis on treatment after the fact instead of aggressively, widely, and prominently promoting health and prevention strategies undermines the well-being and quality of life of the nation and results in a major adverse financial impact.³⁸

FACILITATORS AND BARRIERS TO HEALTH CARE

The IOM has defined access to health care as "the timely use of personal health services to achieve the best health outcomes." The 2008 NHDR identifies the following components of healthcare access:

COMPONENTS OF HEALTHCARE ACCESS

- ◆ Gaining entry into the healthcare system
- ◆ Getting access to sites of care where patients can receive needed services
- ◆ Finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust

Barriers exist in all of these areas for America's racial and ethnic minorities and for low-income and other populations. In particular, barriers for individuals include, among others, inadequate or unavailable health insurance coverage; inadequate or unavailable sources of care and of a primary care provider; and underutilization of health care. Further, "linguistic/cultural access" barriers may exist for those who have limited English proficiency or who are of minority cultures and who do not receive linguistically or culturally competent care. Barriers also exist for disabled individuals who cannot access healthcare services due to physical barriers or lack of assistive technologies. In contrast, removal of barriers facilitates effective health care and promotes healthy outcomes.

Lack of insurance coverage is a major barrier to accessing healthcare services and to reducing disparities. Uninsured individuals do worse than insured individuals on almost 90 percent of health quality measures and on all access measures. The U.S. Census Bureau reported that the number of people lacking health insurance dropped by more than 1 million in 2007, the first annual decline in nearly eight years, including racial/ethnic minorities. This improvement is good news. However, many more individuals (45.7 million) still remain uninsured. Further, some measures of insurance coverage include individuals who are uninsured for only part of the year. Studies show that intermittent insurance coverage also impairs health access and outcomes. When persons are uninsured, underinsured or inadequately insured, there is an adverse impact on their ability to obtain necessary referrals and pharmaceuticals. For example, a recent study funded by AHRQ revealed that uninsured and partially insured patients with diabetes are less likely to be screened at Federally Qualified Health Centers. In addition, there is a large group of women who are not of child bearing age who are not eligible for Medicaid or Medicare and frequently are uninsured. The majority of the uninsured and underinsured are racial/ethnic minorities and/or low-income or vulnerable populations.

Health access disparities are also apparent regarding a "usual source of ongoing care" or of a healthcare "home" and for a "usual primary care provider." For example, the 2007 NHQR⁴⁶ states:

- The proportion of persons with a specific source of ongoing care (in 2005) or a usual primary care provider (in 2004) was significantly lower for poor people (78.1 percent, 72.2 percent, respectively) than for high-income people (92.3 percent, 81.4 percent, respectively).
- ◆ The proportion of persons with a specific source of ongoing care (in 2005) or a usual primary care provider (in 2004) was significantly lower for Hispanics (76.9 percent, 65.3 percent, respectively) than for non-Hispanic Whites (89.4 percent, 80.7 percent, respectively).

Between \$65 billion and \$130 billion is lost due to premature death and poorer health among those lacking health insurance coverage. 47 Clearly, reducing disparities in healthcare access is a key component toward reducing health disparities and reducing healthcare costs in the nation.

The challenge is to effectively and efficiently work toward common goals in an era of limited economic resources. It is time to refocus, reinforce, and repeat the message that health disparities exist, that health equity benefits everyone, and that cooperative, grassroots, leveraged, and evidencebased actions are necessary to make headway in reducing racial and ethnic disparities in health.

OPPORTUNITIES FOR ENDING HEALTH DISPARITIES

For racial and ethnic minorities, poor, and other populations, the existence of health disparities is undisputed. Thus, the question that confronts us is: What actions can be taken that would improve the effectiveness and efficiency of our collective efforts?

Knowing our history, understanding current trends, and realizing the social and economic benefits of health equity, we must decide where we go from here. The questions that remain include:

- What can we propose today to advance health equity?
- What can we do from now onward that will have the same power to inspire action as did the Heckler Report?
- ◆ How, as a nation, can we collectively move beyond the *Unequal Treatment Report*⁴⁸ and more effectively address the issues of health disparities?

THE NATIONAL PARTNERSHIP FOR ACTION (NPA) TO END HEALTH DISPARITIES

The intent of the NPA is to set up a nationwide, comprehensive, community-driven, sustained approach to combating health disparities and to move the nation toward achieving health equity. This intent is in keeping with OMH's mission to improve and protect the health of racial and ethnic minority populations in the United States through the development of health policies and programs that will eliminate health disparities. It also is aligned with the Healthy People 2020 objectives to achieve health equity, eliminate disparities, and improve the health of all groups.⁴⁹

The impetus for establishing the NPA grew in response to the voices of the nearly 2,000 leaders who attended the National Leadership Summit for Eliminating Racial and Ethnic Disparities in Health sponsored by 0MH in 2006. The Summit broadened the national dialogue about health disparities and moved it from the more traditional disease-focused approach to one that addresses crosscutting, multilevel issues through a more systems-oriented approach. This broader approach is intended to more systematically tackle health disparities by bringing together individuals and organizations within the health sector together with other individuals and organizations whose work influences health.

By the end of the Summit, a clear mandate emerged around actions necessary to more effectively and efficiently address health disparities in this country. The views of Summit participants were consistent with several recommendations of the *Heckler Report*, the *Unequal Treatment Report*, key findings in the *National Healthcare Disparities Report* and *National Healthcare Quality Report*, and findings from recent literature on health disparities. The Summit honored the 20-year mark since the release of the *Heckler Report* and the remarkable growth since 1985 in health disparities knowledge, activities, and funding. In addition, the Summit ushered in a new opportunity to coalesce around a national plan to end health disparities.

FORMATION OF THE NATIONAL PLAN FOR ACTION

The *National Plan for Action* is one of three components of the National Partnership for Action (NPA) to End Health Disparities. The two other components include: (1) ten *Regional Blueprints for Action* which are aligned with the *National Plan for Action* and include strategies and actions most pertinent to communities in each region; and (2) targeted initiatives that will be undertaken by partners across the public and private sectors in support of the NPA.

A prime and early activity of the NPA was to establish the priorities for the *National Plan for Action* and *Regional Blueprints* using a "bottom up" approach. The intent was to change the paradigm of strategy development by vesting individuals—particularly those at the front line of fighting health disparities—with identifying and helping to shape core actions for a coordinated national response. The view is that local leaders rarely participate in policy development, yet their participation is fundamental in formulating solutions that are most relevant to their communities.

The "bottom up" approach included development of focused, localized continuations of the National Leadership Summits on Eliminating Racial and Ethnic Disparities in Health called Regional Conversations.

The Regional Conversations were preceded by smaller "voices" pre-meetings with community-based representatives, Native American, Native Hawaiian or Pacific Islander leaders, and individuals representing Caribbean communities and academia. Community representation was comprised of experts and leaders from community and faith-based organizations, city and county governments, health care and health system workers, businesses and foundations, research and academic institutions, and other public health entities. Collectively, these conversations elicited input and fostered cooperation among a wide variety of stakeholders.

ACTION PLAN DEVELOPMENT PROCESS

Action Plan Development Process							
Pre-Meetings	Regional Conversations	Analysis & Input	Content Refinement	Content Reviews and Recommendations			
Community*	Regions 1, 2, 3	Office of Minority Health					
Native Hawaiian & Pacific Islander	Region 4	Federal T		Consensus			
Native American	Region 5	National Visionary Panel		Meeting			
Caribbean	Region 6 Regions 7, 8	Federal Team		National			
Academia	Regions 9, 10	Office of Minority Health		Review			

*The use of "Community" in this diagram refers to community-based representatives of African-American, Hispanic, Native American/Alaskan Native, Native Hawaiian and Pacific Islander, and Asian-American attendees at the Regional Conversations. In specific Regional Conversations, representatives from tribal, Caribbean, Pacific Islands, and academia also held meetings and/or provided input to the Regional Conversation outcomes.

The information from all of the Regional Conversations and voices meetings were reviewed for common and priority actions. These actions were subsequently used as the basis for conversations and planning with a National Visionary Panel, which was comprised of experts from community, public health, academic, health care, research, private sector, nongovernmental, and other national organizations and associations. The common and priority actions were also shared and discussed with the Federal Interagency

Management Team established specifically to partner and guide the work of the NPA, as well as during a national health disparities plan consensus meeting. Ultimately, this collective process resulted in the establishment of 20 common strategies of action that form the basis for this *National Plan for Action*.

PRINCIPLES OF THE NPA

Partnerships

Thousands of partnerships, anchored by government or community organizations, have formed over the past two decades to support health-related activities. Health partnerships are collaborations in which organizations agree to work together to achieve shared or complementary goals that lead to improvements in health, safety, or well-being. Membership size may vary, but a partnership usually involves both professional and grassroots organizations. A partnership is action-oriented and focuses on reducing or preventing community problems by analyzing the problem, identifying and implementing solutions, and creating social change. Sa

The best of these partnerships bring people together, expand resources, focus on issues of community concern, and achieve better results than any single group could achieve alone. Partnerships offer many direct and indirect benefits, ⁵⁴ such as:

- Serving as effective and efficient vehicles for exchanging knowledge and ideas
- Demonstrating and developing community support or concern for issues
- Maximizing the power of individuals and groups through collective action
- Improving trust and communication among community agencies and sectors
- Mobilizing diverse talents, resources, and strategies
- Building strength and cohesiveness by connecting individual activists and organizations
- Reducing the social acceptability of health risk behaviors
- Changing community norms and standards

When real community involvement exists, partnerships can address community health concerns while aiding and developing capacity in those communities. Thus, partnerships are vehicles to increase

community participation, leadership skills, resources, social and inter-organizational networks, sense of community, community power, and community problem solving. 55

The pooling of resources, mobilization of talents, and use of diverse approaches that typify effective partnerships make them a logical cornerstone in any effort to end health disparities. Inequities in health have multiple causes and consequences that require complex solutions and actions from multiple disciplines and sectors (e.g., social services, health, housing, education, among others). However, health and human services organizations often are limited in addressing such issues due to duplication of efforts,

fragmentation of services, multicultural insensitivity, and unequal access to

resources.

By sharing their human and material resources, finances, and time, partnerships provide a multifaceted approach to any issue. Such partnerships may even counter the declining trend in civic engagement and re-engage individuals and organizations to address local problems.⁵⁶ "We may have all come different ships, but we're n the same boat now." - Martin Luther King Jr.

In fact, partnerships are appealing because they mirror the very principles of democracy that encourage their formation—such as civic participation, equality, tolerance, human rights, accountability, and transparency.⁵⁷ In short, local, state, regional, and national organizations must work collaboratively with individuals, families, and communities affected by disparities in health and health care if they are to effectively resolve them.

Cultural Competency

Although cultural competency is one of the five NPA objectives, it also is a crosscutting principle. A core belief of the NPA is that improving cultural and linguistic competency is necessary for improving health outcomes for racial and ethnic minorities and underserved populations. This principle supports the view that health values, beliefs, practices, and behaviors are culturally bound, 58 and they require an understanding of how culture and health intersect as a means for improving outcomes. Many of the challenges encountered when integrating cultural and linguistic competence into health care comes from insufficient understanding of the role of culture in defining health.

Culture can be defined as a "set of shared attitudes, values, goals, and practices." 59 Culture influences a group's ways of thinking, feeling, and acting. Culture informs how a group perceives health, wellness, disease, health care, and prevention. As a concept, a definition, and a set of values, cultural competency was originally defined as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations." ⁶⁰ Since then, service and support agencies and systems have adapted the definition to address their own vision, mission, and values.

Linguistic competency is less debated and is more clearly understood by healthcare system administrators and providers. However, in practice, the focus has been more narrow than delineated by its definition, which is "the capacity of an organization and its personnel to communicate effectively and to convey information in a manner easily understood by diverse audiences, including persons of limited English proficiency, those who have low literacy skills or are not literate, and individuals with disabilities." Most organizations recognize the need to provide translated materials and interpreters to individuals with limited English proficiency (LEP) and to individuals with disabilities. Rarely do organizations recognize the relationship of literacy to health literacy. Providing materials for individuals who have low literacy skills is also part of the framework for providing linguistically competent services.

Ensuring that LEP individuals receive services is based on federal law. Title VI of the Civil Rights Act of 1964 and its implementing regulations prohibit conduct that has a disproportionate adverse effect on LEP persons. Such conduct constitutes national origin discrimination. The failure of recipients of federal financial assistance (often healthcare system administrators and providers) to take reasonable steps to provide LEP persons with a meaningful opportunity to participate in federally-funded programs may constitute a violation of Title VI.⁶²

NPA MISSION AND OBJECTIVES

The mission of the NPA is to increase the effectiveness of programs that target the elimination of health disparities through the coordination of partners, leaders, and stakeholders committed to action. The NPA serves as a catalyst for collective leadership action around five main objectives:

NPA Objectives

- 1. AWARENESS—Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial and ethnic minority populations.
- 2. LEADERSHIP—Strengthen and broaden leadership for addressing health disparities at all levels.
- 3. HEALTH AND HEALTH SYSTEM EXPERIENCE—Improve health and healthcare outcomes for racial and ethnic minorities and underserved populations and communities.
- 4. CULTURAL AND LINGUISTIC COMPETENCY—Improve cultural and linguistic competency.
- 5. RESEARCH AND EVALUATION—Improve coordination and utilization of research and evaluation outcomes.

Awareness

A common concern is the level of awareness of health disparities among the American public. ⁶³ Various reports over time have shown that Americans are not familiar with or informed about health and healthcare

disparities. The 1985 *Heckler Report* documented the continuing burden of disparities for racial and ethnic minorities, noting that such disparities had "existed ever since accurate federal record keeping began—more than a generation ago." In assessing access to health information, the Secretary's Task Force concluded that minority populations may be less knowledgeable of specific health problems than non-minorities. The Task Force developed recommendations for improving awareness through outreach and patient education.

In 1999 the Kaiser Family Foundation conducted a study to assess the public's perceptions and attitudes about racial and ethnic differences in health care. The survey, which included a nationally representative sample of 3,884 Whites, African Americans, and Latinos, found that most Americans (62 percent) were uninformed about disparities in health care. Another important finding was that there were differing views about the role that race plays in accessing quality care. Most African Americans and Latinos believed that they receive lower quality care and that race and ethnicity influences the ability to get routine care. This was a view that was not shared by White respondents. The study concluded that "efforts to eliminate health disparities will need to improve public awareness of the problems and address barriers of race and money in health care." A 2006 survey by the Kaiser Family Foundation yielded results similar to those from the 1999 survey.

The Harvard School of Public Health and the Robert Wood Johnson Foundation conducted a poll in 2005 (1,111 Whites, African Americans, and Hispanics/Latinos) to evaluate the American public's knowledge about healthcare disparities. Key findings from this survey comported with findings from the Kaiser Family Foundation study regarding the lack of widespread recognition of the existence of disparities in health care. Overall, only 32 percent of Americans believed that getting quality care was more difficult for minorities. Different populations had diverging views about the influence of race or ethnicity in the quality of care received. Twenty-three percent of African Americans believed that they received poor quality of care because of their race or ethnicity. In contrast, only one percent of Whites believed this. Furthermore, 21 percent of Hispanics/Latinos believed that they received poor quality care because of their accent or how well they spoke English. The survey also revealed that 65 percent of Americans thought the federal government should do more to address racial and ethnic healthcare disparities. 66

The good news is that there has been a significant increase in awareness of health disparities among physicians. In 2002, the Kaiser Family Foundation released findings of a national survey which indicated that, in general, doctors are less likely than the public to say disparities are happening "very often" or "somewhat often." However, by 2005, a study by the American Medical Association showed that physicians were becoming more involved in addressing health care disparities. Findings from this national survey showed that 55 percent of physicians agreed that minority patients generally receive lower quality care than do White patients. 68

The challenge before us is to ensure that all stakeholders, not just racial and ethnic minority communities, understand the problem and are working together to enhance the visibility of this critically important public health issue. The challenge also calls for working collaboratively to develop a more coordinated approach to health promotion and disease prevention across the lifespan—to encourage healthier lifestyles for all Americans.

Partnering to leverage local, regional, and national media outlets using traditional and nontraditional media sources and to provide multi-tier, multi-ethnic audiences with targeted messages is now more important than ever. This can be achieved by preparing and disseminating messages about health disparities, how they impact the national economy, why specific communities are at greater risk, and what actions are being taken to address the contributing factors in a new way. This objective is not only about doing things differently, but also about working more strategically to obtain a stronger return on our investment.

Leadership

To achieve the objectives of the NPA, current leaders will need to become more engaged and new leaders will need to be developed. While leaders are needed at all levels of engagement, community leaders have been a long-overlooked resource for harnessing the full complement of experiences, concerns, and ideas that are critical to developing local solutions. In many instances, community and faith-based organizations and other safety-net programs are the most accessible resource for leadership among minority and other underserved communities. These organizations often lack the funding, infrastructure, and technical or personnel support to appropriately tackle disparities. Investing in tools and providing capacity-building assistance is vital for ensuring that community leaders can engage as equal partners.

Local research and academic institutions can play a vital role in providing capacity-building support to develop and more effectively engage community leaders. They can serve as conveners of meetings with legislators, public health officials, community representatives, private sector representatives, and others seeking to advance actions to end health disparities. They also are positioned to assist communities in identifying data and information related to their health concerns, where health disparities exist, and in developing neighborhood strategies to address them.

The nation's youth are an important resource for developing current and future leaders. After several years of decline across the nation, the population of young Americans is growing and in coming years will rival the size of the baby boomer generation. They will ultimately become the adults who make decisions that reshape our social and physical environments and produce innovations to combat health and healthcare disparities. Through education and awareness activities (e.g., promoting awareness of culture and language diversity in the community, helping youth participate in developing plans to improve the health policies and programs at their local schools, or encouraging youth to volunteer in community health worker programs), youth-serving organizations are a resource for shaping youth and helping them become the leaders of tomorrow. ⁶⁹

Health and Health System Experience

Health is influenced by a number of interrelated factors including the social, economic, and physical environments as well as individual characteristics and behaviors. These factors address issues that are linked to health—such as income and social status; educational attainment; safe living and working environments; social and cultural networks; genetics; access to health services; gender; and age.

While all of the determinants of health are important, priorities for this objective will focus on ensuring access to quality health care for all Americans; ensuring that children and older adults receive needed services; enhancing health service experiences through improved health literacy and communication; and improving educational attainment for minority and underserved populations by promoting school readiness and strengthening community supports.

There is a significant body of evidence on the relationship between education and health. ^{71,72} Low educational attainment is a powerful predictor of adverse health outcomes. Although the reasons behind this relationship are complex, a basic component relates to differences in the behaviors of higher and lower educated groups. Generally, individuals with higher levels of education have healthier behaviors. For example, they are more likely to exercise, less likely to smoke, and less likely to be exposed to behaviors that may harm health. In the United States, men and women have similar levels of academic achievement. However, African Americans and Hispanics have lower academic achievement compared to Whites and Asians. The gap for African Americans and Hispanics widens at higher levels of academic experience.

The *Unequal Treatment Report*⁷³ highlights many factors that contribute to disparities in health outcomes. These include health system-related factors, as well as the actions and attitudes of individuals (e.g., healthcare providers, utilization managers, and patients). At a systems level, this can include institutional bias, stereotyping/prejudice, the lack of cross-cultural education in the training of health professionals, and the lack of policies and infrastructure to address the multiple needs of diverse clients. At the provider level, there may be a lack of knowledge regarding multicultural service provision and culturally relevant care. Additionally, socio-cultural differences between patient and provider influence communication. There is a strong need to develop, implement, and evaluate culturally appropriate patient education programs that address the literacy and language needs of racial and ethnic minority populations.

The quality of care experienced by users of the health system improves when providers and practitioners communicate with patients in a way that is understandable and appropriate to their level of understanding and language comprehension, their cultural and spiritual beliefs regarding health care, and their comprehension of the disease and the proposed treatment. Patients desire to receive this quality of care regardless of their ability to pay or their access to insurance coverage. Successful communication between patients and providers promotes respect of patients' wants, needs, and preferences, and fosters an environment that promotes understanding of services offered, informed decision making, and active participation in personal care.⁷⁴

Patients should receive health care from providers and practitioners who are aware of, respectful of, and knowledgeable about the patient's racial or ethnic background. In a study conducted by the Commonwealth Fund, 13 percent of Hispanics felt they would have gotten better care if they were of a different race or ethnicity. They believed they were not respected by the healthcare industry based on their ability to pay or speak English. In this same study, researchers found that Hispanics and Asian Americans have less confidence in their physicians than do Whites. African Americans and Hispanics consistently rate as "low" the quality of communication and interaction with their providers. Contributing to these phenomena are the real and perceived experiences of racism among minority populations. This, in turn, fosters mistrust of healthcare institutions and providers and a corresponding diminished willingness to access institutional healthcare resources.

Some individuals facing health disparities have not had the opportunity to develop meaningful relationships with providers and thus miss opportunities for understanding the role they play in determining their own health futures. When patients have "medical homes"—settings that provide timely, well organized care and enhanced access to providers—racial and ethnic disparities are reduced.⁷⁷ The infrastructure of the current healthcare system often limits the amount of time allowed for interaction between patient and provider. This time constraint, in addition to common language barriers and cultural differences, minimizes opportunities to understand the medical, financial, cultural, and societal factors that affect the patient's health.

The growing diversity of American society, and the influx of foreign-born and non-English-speaking immigrants, warrants the need for improvements in the health system experience for all patients. Retter patient health status, satisfaction, and compliance will mutually benefit patients and providers and will help decrease healthcare disparities. The creation of policies, programs, operations, and practices that effectively address patient-provider interaction and communication in our healthcare system has the capacity to foster a healthcare culture of equity and accountability. Ultimately, this will reduce inequities in health and health care.

Cultural and Linguistic Competency

Cultural and linguistic competency reflects and builds on basic communication priorities. Understandable communication is a necessity of any successful endeavor. Words and text must be understood by the recipient; otherwise the exercise of providing them is meaningless. Thus, the essential first step in communication is simply to be clear. Understandable messages require, at the most basic level, communication in a language that the recipient understands. Beyond the basic issues of language competency, there are important issues of cultural competency. Knowledge and accommodation of cultural factors are necessary for true communication. Cultural competency and communication also require an atmosphere of mutual respect and cooperation.

Cultural and linguistic competency is closely linked to positive patient-provider interaction and to a positive health system experience for patients. Research has linked the ability of providers to effectively interact and communicate with their patients to improved patient satisfaction, treatment compliance, and health outcomes. Familiarity with a patient's personal and cultural health beliefs, past health experiences, desired outcomes, literacy capacities, apprehensions, and spiritual beliefs can have a positive impact on patient-provider relationships.

Healthcare providers who share the same cultural and linguistic background as those they serve can be particularly effective in providing services. Recruitment of racial and ethnic minorities into the workforce and into practice in underserved areas continues to be a valuable strategy for promoting cultural competency—as is the recruitment of lay workers. For example, since the 1960s, lay health workers, neighborhood workers, indigenous health workers, health aids, "consejeras," and "promotoras" have fulfilled multiple functions in helping to improve health outcomes for racial and ethnic minority populations. ⁸² Once trained and deployed strategically, these community members assist consumers with low English proficiency to successfully negotiate unfamiliar healthcare settings (e.g., interpretation services, explanation of insurance coverage, or availability of social services).

Continuing efforts are underway to provide cultural competency training to current and future healthcare providers. However, it is important to differentiate between receiving training in cultural sensitivity/competency and the actual translation of that training into the acquisition of skills that allow effective interaction and communication with patients. The training is not effective if the skill acquisition does not occur. Providers must possess or learn the cognitive abilities and interpersonal skills that will yield proficiency in customer service. Cultural and linguistic competencies improve collaborative goal setting, planning, and participation of patients in their own care. Research studies have identified specific positive provider behaviors (e.g., listening to patients and their families, explaining treatment options, encouraging participatory decision making, spending time with patients, and patients' perception of respect) as important indicators of patient satisfaction with the health system experience. 83,84

Awareness of the cultural values, beliefs and practices of different racial and ethnic groups can help healthcare providers understand and address their unique risk factors. For example, South Asians consume Ayurvedic medicines that may expose them to toxic metals. If such individuals show up in a clinical setting with toxicity symptoms, it would be helpful if the practitioner understood the toxicity potential and was prepared to obtain critical information to provide the necessary care. Thus, lack of cultural competency in health and environment departments may limit the access of ethnic groups who may have atypical consumption habits or food sources.

Tools for implementing and fostering cultural competency, linguistic competency, and health literacy are available from a variety of resources. For example, the National Committee for Quality Assurance is identifying innovative practices that improve the delivery of culturally and linguistically appropriate

services. The Health Research and Educational Trust offers a disparities toolkit, which includes a language services action kit to ensure that people with limited English proficiency receive appropriate language services in healthcare settings.⁸⁵

Research and Evaluation

In 1906, noted historian and philosopher, W.E.B. Du Bois, published a monograph entitled The Health and Physique of the Negro American, ⁸⁶ which sought to dispel published claims that the known higher levels of mortality and morbidity for African Americans were due to inherent racial traits. Du Bois' monograph is an early example of our nation's long history of using research to document health disparities, define their causes, and confront those conditions.

The need to improve research and evaluation regarding the causes of health disparities is essential to improving the health of Americans and our nation's efforts to end health disparities. All minority groups experience health disparities, and while research to document these disparities has continued and improved, the research to identify the social and environmental determinants of these disparities, as well as the development, dissemination, and translation of scientifically proven models for changing these conditions, still lags behind.

Attention must be given to the integrity of the data collection process and to the scientific approach of collecting that data as a means for documenting the health status and needs of affected communities. Developing collaborative relationships with and among institutions that collect data on minorities and underserved populations is key to ensuring that they provide data in readily accessible forms and that include all health disparity populations. Frequently, data are not presented in forms that are useful to, or available to, leaders of local organizations or that allow understanding of the particular health concerns of sub-populations. Oftentimes, data also are published in journals, reports, and other formats that are not widely distributed to the local community or easily accessible to non-research audiences.

Conducting evaluations in small communities and sub-populations has frequently been a challenge. Smaller communities often do not have the means to collect baseline data and then perform follow-up data collection to measure the results of their interventions and activities. Even among state, federal, and private sector organizations, there may be challenges in data collection, including small numbers of racial and ethnic minorities and underserved populations in studies and lack of standardized measurement. Larger data sets allow for more confidence in findings, as well as the ability to break findings down into smaller subsets (e.g., by racial/ethnic subpopulations or by individual behaviors or characteristics).

There is a need for interdisciplinary research that can understand the complex interplay of issues related to health disparities (e.g., the underlying causes of disparities, including racism). Researchers from different fields are frequently not accustomed to working collaboratively. Furthermore, the inability to agree on the definitions of the problem, its causes, or the methods used to research it can be problematic. Without mutual understanding about contributing factors to poor health outcomes and how they work together, we cannot implement successful solutions.

Similarly, there is a need to invest in authentic community-based participatory research and community-originated intervention strategies as a means for developing capacity at the local level. Thousands of programs have been initiated, yet most are not evaluated effectively to determine whether they worked, for whom, and in what way. We cannot build on and improve local and other efforts if we do not understand what works. All programs must have the capacity to conduct basic evaluation that can add to our understanding of how to eliminate disparities. Improving the health outcomes of minority and underserved communities will take the combined efforts of medical scientists, statisticians, anthropologists, economists, sociologists, epidemiologists, policy analysts, psychologists, community developers, and others working in collaboration with community organizations.

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CHAPTER TWO - THE CURRENT CONTEXT

The Current Context

INTRODUCTION

The purpose of this chapter is to establish a context for understanding health and healthcare disparities in the United States. The literature on disparities is extensive, and a summation of all of the findings is not possible within the scope of this chapter. The information and data included are intended to provide a view of the weight of the evidence that supports the strategies and actions presented in Chapter 3. The information and data are also intended to serve as a reference for individuals and organizations that will shape policies and drive action on the strategies presented.

Although race and ethnicity are related concepts, they represent two distinct classifications that are used in collecting population data. Ethnicity is a social grouping of a shared nationality or cultural origin (e.g., Hispanic/Latino and non-Hispanic/Latino). Race is rooted in a social-political construct that takes into account social and cultural characteristics as well as some biological distinctions. The definitional distinctions are often nuanced. However, federal standards designate racial categories as White; African American or Black; Asian; American Indian or Alaska Native (Al/AN); and Native Hawaiian or Pacific Islander (NHOPI). In this document, the terms "African American" and "Black" are used interchangeably. The term "Hispanic" designates Hispanic/Latino populations. Hispanics/Latinos can be of any race.

For the demographic and other data presented below, every attempt has been made to use the most up-todate and reliable data sources—primarily from the U.S. Census Bureau, Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Substance Abuse and Mental Health Services Administration (SAMHSA), Health Resources and Services Administration (HRSA), Agency for Healthcare Research and Quality (AHRQ), and other agencies. However, the availability of data for comparative purposes always poses a challenge. Often several years may pass between data collection and its availability for public use. Furthermore, due to logistical challenges, there is a persistent insufficiency in sample size, such that statistically significant data are often not available for some populations. This is especially true when populations are grouped together for data collection purposes. For example, demographic data for Asian Americans, Native Hawaiians, and Pacific Islanders are often collected together. This type of grouping often masks and significantly underestimates the disparities that exist for subpopulations. Misclassification of race or ethnicity may also result in inaccurate data for multiple population groups.

Underestimates of health status may have significantly adverse health consequences for the populations affected. Whenever awareness of health disparities is compromised due to misleading or unavailable data, there is a corresponding lost opportunity to focus on prevention, heath care, research, and other efforts. As

a result, the populations affected by inadequate or inaccurate data continue to suffer from poor health outcomes. These challenges highlight the ongoing need for widespread collection of demographic data followed by rapid dissemination for evaluative purposes. The issue of data availability for all populations was raised as a key concern throughout the consultation process used to develop this National Plan. Additional methods for data collection and analysis are being explored. In 1999, the HHS Data Council Working Group on Racial and Ethnic Data and the Data Work Group of the HHS Initiative to Eliminate Racial and Ethnic Disparities in Health issued a joint report with recommendations for improving the collection and use of racial and ethnic data. The 1999 report, current deliberations of the HHS Data Council, and recommendations by other organizations will provide important considerations for improving the availability of data for all groups.

The information in this chapter is organized in the following sections: (1) Demographics of the United States; (2) Disparities Overview; (3) Health Disparities; (4) Determinants of Health; and (5) Healthcare Workforce.

DEMOGRAPHICS OF THE UNITED STATES

Understanding the geographic distribution, racial and ethnic mix, gender, aging, disability status and other characteristics of the U.S. population is important in planning for the varying health needs of different populations in different parts of the country. The characteristics that have distinct geographic patterns include racial and ethnic mix, aging, and disability status.

Exhibit 2-1 shows the U.S. population characteristics by geographic regions used by the Census Bureau.³ Whites comprise about 80 percent of the population in all regions of the country. The nation is 51 percent female in all regions except for the West (50 percent). African-Americans are about 13 percent of the population nationally but are more highly represented in the South (19 percent) and less so in the West (5 percent). American Indians and Alaska Natives are one percent of the U.S. population; although in the West they comprise 2 percent of the Western population. Asians comprise about 4.5 percent of the national population and slightly more than that in the Northeast; however, they are almost 9 percent of the Western population and only about 2.5 percent of the Midwest and Southern populations. Native Hawaiians or Pacific Islanders comprise less than 0.2 percent of the populace throughout the country except for the West where they are about 0.5 percent of the population. Multiracial individuals comprise approximately 2 percent of the population across geographic regions. Approximately 15 percent of the country is Hispanic, although proportions vary considerably by geographic location. About 28 percent of the West is Hispanic, yet only 6 percent of the Midwest is Hispanic. Exhibit A-1 in Appendix A displays additional detailed information about race and ethnicity for 2008 population estimates.

The Census Bureau projects that by 2050 the U.S. population will be older and more diverse. By 2023 more than half of all children will be minority, by 2030 nearly one in five U.S. residents will be 65 years or older, and by 2050 the nation will be 54 percent minority.4

Exh	Exhibit 2-1: Geographical Distribution of United States Population by Race/Ethnicity, 2008 Population numbers and percentage of total population							
	U.S.	Northeast b	Midwest ^C	South ^d	West ^e			
Gender		•		•				
Male	149,924,604	26,740,485	32,797,335	54,885,816	35,500,968			
	(49.31%)	(48.69%)	(49.27%)	(49.13%)	(50.10%)			
Female	154,135,120	28,184,294	33,764,113	56,832,733	35,353,980			
	(50.69%)	(51.31%)	(50.73%)	(50.87%)	(49.90%)			
Total by gender	304,059,724	54,924,779	66,561,448	111,718,549	70,854,948			
	(100%)	(100%)	(100%)	(100%)	(100%)			
Race		•						
White	242,639,242	44,152,158	56,638,126	84,690,175	57,158,783			
	(79.80%)	(80.39%)	(85.09%)	(75.81%)	(80.67%)			
Black	39,058,834	6,880,762	6,913,392	21,609,392	3,655,288			
	(12.85%)	(12.53%)	(10.39%)	(19.34%)	(5.17%)			
AI/AN	3,083,434	222,957	471,590	920,694	1,468,193			
	(1.01%)	(0.41%)	(0.71%)	(0.82%)	(2.07%)			
Asian	13,549,064	2,852,517	1,600,194	2,837,889	6,258,464			
	(4.46%)	(5.19%)	(2.40%)	(2.54%)	(8.83%)			
NHOPI	562,121	45,196	36,815	96,447	383,663			
	(0.19%)	(0.08%)	(0.06%)	(0.09%)	(0.54%)			
Two or more races	5,167,029	771,189	901,331	1,563,952	1,930,557			
	(1.70%)	(1.40%)	(1.35%)	(1.40%)	(2.73%)			
Total by race ^a	304,059,724	54,924,779	66,561,448	111,718,549	70,854,948			
	(100%)	(100%)	(100%)	(100%)	(100%)			
Ethnicity		1		ı	1			
Not Hispanic/Latino	257,116,111	48,503,638	62,297,470	95,198,450	51,116,553			
	(84.56%)	(88.31%)	(93.59%)	(85.21%)	(72.14%)			
Hispanic/Latino	46,943,613	6,421,141	4,263,978	16,520,099	19,738,395			
	(15.44%)	(11.69%)	(6.41%)	(14.79%)	(27.86%)			
Total by ethnicity ^a	304,059,724	54,924,779	66,561,448	111,718,549	70,854,948			
	(100%)	(100%)	(100%)	(100%)	(100%)			

Source: U.S. Census Bureau, FactFinder, Data Sets, Annual Population Estimates, 2008 Population Estimates, Detailed Tables T3-2008 and T4-2008 by state. Geographical areas are U.S. Census designations. The U.S. Census Bureau includes only states data under the geographical areas shown here. District of Columbia and U.S. Island Areas are not included.

Percentages may not sum to 100% due to rounding effects.

D_ The Northeast region includes: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania.

The Midwest region includes: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

The South region includes: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas.

e The West region includes: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington.

http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-

 $redoLog = true \& -all_geo_types = N\&_caller = geoselect\& -geo_id = 01000US\& -geo_id = 02000US1\& -geo_id = 02000US2\& -geo_id = 02000US3\& -geo_id$ geo_id=02000US4&-search_results=03000US5&-format=&-_lang=en

Census 2000 data indicate that two groups, Blacks and American Indians/Alaska Natives, had the highest overall estimated disability rate (24.3%). The rates were higher than non-Hispanic Whites, although the median age for Non-Hispanic Whites was higher than for other racial and ethnic groups. The distribution of people with disabilities is highest in the South (38.3%) and lowest in the Northeast region of the country $(19.0\%)^{.5}$

In 2005, the South had the largest number of older Americans followed by the Midwest, Northeast, and West.⁶ The ratio of older adult males to older adult females is lower than the ratio of males to females in the total population. For example, in 2000 there were 96 males per 100 females in the total U.S. population. Comparatively, for people who were 65 and older during the same time period, there were 70 males per 100 females. By age 85 the ratio of older adult females to older adult males was more than 2 to 1. The geographic distribution of older adults and larger number of older women pose important social, economic, health, and other considerations as the American population ages.

Awareness of the urban and rural distribution of an area's residents is important for understanding health needs, access to resources, and factors that influence health. Exhibit 2-2 shows that the U.S. population is approximately 77 percent urban and 23 percent rural. Forty percent of American Indians and Alaska Natives

Exhibit 2-2: United States Urban/Rural Populations, 2006–2008

Eximult 2-2. Officed States Orbanyhurai i opunations, 2000–2000					
Race/Ethnicity	Percentage of each population				
nace/Lumicity	Urban	Rural			
All	77.1	22.9			
White	73.2	26.8			
Black	88.2	11.8			
AI/AN	59.8	40.2			
Asian	92.9	7.1			
NHOPI	89.9	10.1			
Some other race	92.2	7.8			
Two or more races	82.4	17.6			
Hispanic	90.8	9.2			

Source: U.S. Census Bureau, Factfinder, Datasets. IN: 2006-2008 American Community Survey 3-Year Estimates, Detailed Tables B02001 and B03002, United States, AI/AN=American Indian/Alaska Native; NHOPI=Native Hawaiian/Pacific Islander.

http://factfinder.census.gov/servlet/DTTable?_bm=y&ds_name=ACS_2008_3YR_G00_&-gc_url=010:00%7C01%7C43%7C&-CONTEXT=dt&-mt_name=ACS_2008_3YR_G2000_B03002&mt_name=ACS_2008_3YR_G2000_B02001&-redoLog=false&geo_id=01000US&-geo_id=NBSP&-format=&-_showChild=Y&-_lang=en

and 27 percent of Whites reside in rural areas. In contrast, the following populations are far less likely to reside in rural areas: Asians (7.1%), Hispanics (9.2%), Native Hawaiians and Pacific Islanders (10.1%), and Blacks (11.8%). In fact, more than 88 percent of these racial and ethnic populations reside in urban areas in contrast to 60 percent urban American Indian and Alaska Natives, and 73 percent urban Whites. Exhibits A-2 and A-3 in Appendix A display additional detailed information about population density and urban/rural distribution in the U.S. Census geographic regions.

Puerto Rico, the U.S. Virgin Islands, the Pacific Jurisdictions (American Samoa, Commonwealth of the Northern Mariana Islands, Guam), and the Freely Associated States (Federated States of Micronesia, Republic of the Marshall Islands, Republic of Palau) include nearly 4.6 million people of which 87 percent reside in Puerto Rico (Exhibit 2-3). Collectively the Pacific Jurisdictions

and the Freely Associated States are home to nearly 490,000 people, have fewer total residents than Wyoming, the least populated state (532,668), and extend across an ocean area that is larger than the continental U.S. The U.S. Virgin Islands has a resident population that is similar in number to islands in the Pacific Jurisdictions (110,000).

Life expectancy and infant mortality differ for Puerto Rico, the U.S. Virgin Islands, Pacific Jurisdictions, and the Freely Associated States. For example, the infant mortality rate for the U.S. Virgin Islands and Puerto Rico is 1.3 times that of the U.S. rate. For the Freely Associated States, the infant mortality rate ranges from two to four times the U.S. rate. In 2009, life expectancy at birth for the U.S. is 78 years. Comparatively, people in the three Freely Associated States have a life expectancy of 71 years.

Understanding the characteristics of foreign born individuals in the U.S. provides an opportunity to assess and plan for cultural, language, and other factors that influence health and well-being. Overall, 12.5 percent of the U.S. population is foreign-born (Exhibit A-4 in Appendix A). Approximately 53 percent of these individuals are from Latin America, nearly 27 percent are from Asia, and about 13 percent are from Europe (Exhibit A-5 in Appendix A). On average, 52 percent of the foreign-born population speaks English less than

Exhibit 2-3: Demographic Indicators for United States Island Areas, 2009									
Demographic Indicators	American Samoa	CNMI	Guam	Puerto Rico	USVI	FSM	RMI	Republic of Palau	United States
Population									
Population (in thousands)	65	51	178	3966	110	107	65	21	307,212
Population growth rate (percent)	1.2	-7.1	1.4	0.3	0	-0.2	2.1	0.4	1
Net migration rate ^a (per 1,000 population)	-7	-90	0	-1	-5	-21	-5	1	4
Fertility rate (births per woman)	3.3	2.2	2.5	1.7	1.8	2.9	3.6	1.8	2.1
Mortality									
Life expectancy at birth (years)	74	77	78	79	79	71	71	71	78
Infant mortality rate ^C (per 1,000 births)	10	6	6	8	8	26	25	13	6
Child mortality rate ^d (per 1,000 births)	13	8	7	10	8	32	31	16	8
Death rate (per 1,000 population)	4	3	5	8	7	4	4	8	8

Source: U.S. Census Bureau, International Data Base, data access by country, 2009. United States Territories are: American Samoa; Commonwealth of the Northern Mariana Islands (CNMI); Guam; Puerto Rico; U.S. Virgin Islands (VI). Freely Associated States are: Federated States of Micronesia (FSM); Republic of the Marshall Islands (RMI); Republic of Palau.

[&]quot;The difference between the number of migrants entering and those leaving a country in a year, per 1,000 midyear population. A positive figure is known as a net immigration rate and a negative figure as a net emigration rate."

[&]quot;The average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children according to a given set of age-specific fertility rates."

Under age one.

Under age five.

http://www.census.gov/ipc/www/idb/informationGateway.php

"very well." The U.S. Department of Health and Human Services divides the country into ten regions. The highest concentrations of foreign-born persons are in Region IX (24.8%), consisting of Arizona, California, Hawaii, Nevada, and the U.S. Associated Pacific Basin; Region II (18.8%), consisting of New Jersey, New York, Puerto Rico, and Virgin Islands; Region VI (11.9%), consisting of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; Region I (11.4%), consisting of Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island and Vermont; and Region X (10.4%), consisting of Alaska, Idaho, Oregon and Washington (Exhibit A-5 in Appendix A).

DISPARITIES OVERVIEW

The Agency for Healthcare Research and Quality (AHRQ) tracks healthcare disparities and information pertinent to improving them in its annual National Healthcare Disparities Report (NHDR)¹⁰ and the National Healthcare Quality Report (NHQR). 11 AHRQ reports data on racial and ethnic populations as well as certain priority populations that show evidence of health and healthcare disparities. Priority populations include residents of rural areas, women, children, the elderly, individuals with disabilities, and individuals with special healthcare needs (including those living with mental illness or substance abuse).

Racial and ethnic populations—Exhibit 2-4^{11B} provides a snapshot of some of the health and healthcare disparities for racial and ethnic populations. These and other disparities will be discussed in more detail in the Health Disparities section.

Rural residents—Generally, rural and urban areas have significantly different health-related concerns, health risks, and healthcare resources. For example, rural residents are more likely to be elderly, poor, and in only fair or poor health. They are also more likely to have chronic health conditions compared to their urban counterparts. Among other factors, urban populations have higher rates of specific health concerns (e.g., asthma, lead poisoning) that contribute to noted disparities between populations.

Children—Children are a particularly vulnerable segment of our population and experience significant health disparities. For example, AHRQ reported that: 13

- ◆ In 2005, new AIDS cases among adolescents ages 13-17 exceeded the Healthy People 2010 target of 1 case per 100,000 population for the first time in nearly a decade.
- Children with special healthcare needs from poor families are less likely than their counterparts from high-income families to get care as soon as requested.
- ◆ The proportion of poor children with health insurance (85.7%) was lower than it was for high-income children (96.8%) in 2005.

	Exhibi	t 2-4: A Snapshot of Disparities in Health and Health Care in the United States
Population	Year	Disparity
African Americans	2004	Influenza vaccination rate for older adults was 55.9% compared to 73.7% for Whites
	2005	Infant mortality rates were 2.3 times higher than for White infants.
	2006	Compared to Whites, mortality rates were: • 2.1 times higher for diabetes mellitus • 2.3 times higher for prostate cancer • 5.8 times higher for homicide • 8.9 times higher for HIV
	2005 2004-2006 2006	Compared to Whites, there were: • 3.6 times more hospital admissions for pediatric asthma • 2.3 times more hospital admissions for diabetes-related lower extremity amputations • 9.4 times more new AIDS cases
American Indians and Alaska Natives	2005	Infant mortality rates were 1.4 times higher than for White infants. 4
aliu Alaska Nalives	2006	Compared to Whites, mortality rates were: • 1.7 times higher for motor vehicle-related injuries • 1.9 times higher for diabetes mellitus • 2.0 times higher for homicide • 2.4 times higher for chronic liver disease and cirrhosis
	2005	Compared to Whites, there were: • 2.1 times as many women who did not receive prenatal care in the first trimester
	2007	Al/AN were twice as likely to contract Hepatitis C, as compared to Whites.
Asians, Native	2002	Infant mortality rates were 1.7 times higher for Hawaiians than for White infants.
Hawaiian and Other Pacific Islanders	2006	Cancer was the number one cause of death for Asian Americans and Pacific Islanders (heart disease was the number one killer for all other groups).
	2007	Asian Americans were 1.6 times more likely to contract Hepatitis A, as compared to Whites.
	2005	Compared to Whites, there were: •1.4 times as many Asian adults who reported poor communications with providers
Hispanics/Latinos	2004	Influenza vaccination rate for Hispanic older adults was 58.6% compared to 74.6% for non-Hispanic Whites
	2006	Compared to Whites, mortality rates 11 were: • 1.5 times higher for chronic liver disease and cirrhosis • 1.4 times higher for diabetes mellitus • 2.0 times higher for homicide • 2.1 times higher for HIV
	2005 2006	Compared to Non-Hispanic Whites, there were: 12 2.0 times as many women who did not receive prenatal care in the first trimester 3.5 times more new AIDS cases

Disabilities—In recent years, new attention has been given to the health and healthcare disparities experienced by persons with disabilities. As one measure of disability, more than 20 percent of the adult population in the U.S. self-report as having limitations in their activities due to physical, mental or emotional problems—with even higher percentages for some racial groups and for poorer educated or lower income individuals. Among the central challenges for this underserved population are the limited availability of data (especially for children with disabilities) and the varied approaches to measuring and defining the concept of disability. In 2007, AHRQ created a disabilities subgroup to identify disparities in

quality and access to care for those living with disabilities—with the aim to increase health and healthcare data collection for this group. 14 AHRQ measures disability as limitations in basic activities (mobility and basic functioning) and/or complex activities (interactions with one's environment and/or community life).

Examples of other issues that people with disabilities might encounter with inaccessible health information include, but are not limited to, the following:

- The inability to read the list of available healthcare providers on a website because the data is coded in such a fashion that it is not compatible with a screen reader used by some people with disabilities.
- The inability to create a personal health record using readily available commercial, off-the-shelf software because the software is not usable by someone dependent on assistive technology.
- The inability to understand what is said on a video playing in a medical or dental office waiting area because it is not captioned for people who are deaf.
- The inability by someone with a hearing loss to use a telephone provided at a hospital bedside because the receiver is not hearing aid compatible.

HEALTH DISPARITIES

This section provides brief summaries of selected disparities for populations in the U.S. The amount and availability of data for different populations and health concerns vary. In some cases, information for Asian American, Native Hawaiian, and Pacific Islander populations is presented as Asian/Pacific Islanders in response to how the data was collected. The disparities described below should be considered in light of the determinants of health that are presented later in this chapter.

Infant and Maternal Mortality

Disparities in infant mortality rates are particularly egregious, putting the U.S. at the bottom of developed countries in this regard. African American infants are especially at risk for death in the first year of life, with mortality rates which range from 2 to more than 3 times that of White infants from diseases of the circulatory system, pneumonia, maternal complications, prematurity and low birthweight, Sudden Infant Death Syndrome (SIDS), unintentional injury, and homicide (Exhibit 2-5). Similarly, American Indian and Alaska Native infants die at 2 to 3 times the rate of White infants from SIDS, unintentional injury, and

homicide—and more than 4.5 times that of White infants for pneumonia. Exhibit 2-3, which provides infant mortality rates for the Pacific Jurisdictions and the Freely Associated States, shows infant mortality rates for Federated States of Micronesia, Republic of the Marshall Islands, Palau, and American Samoa that are 4.3, 4.2, 2.2, and 1.7 times that of infants in the U.S., respectively.

The maternal mortality rate has increased in the past few decades after dramatic declines from the early 20th century. Some of the increase may be due to coding and classification of maternal deaths. However, in 2006 there were 13.3 deaths per 100,000 live births, which represents an increase from a low of 6.6 deaths per 100,000 live births in 1987. The rate for non-Hispanic Black women was more than 3 times that of non-Hispanic White women (34.8 versus 9.1 per 100,000). The risk of maternal death increases with age for all racial and ethnic women. In 2006, the maternal mortality rate of women aged 35 years and over was nearly 6 times the rate of women under 20 years of age (29.3 versus 5.0 per 100,000). 15

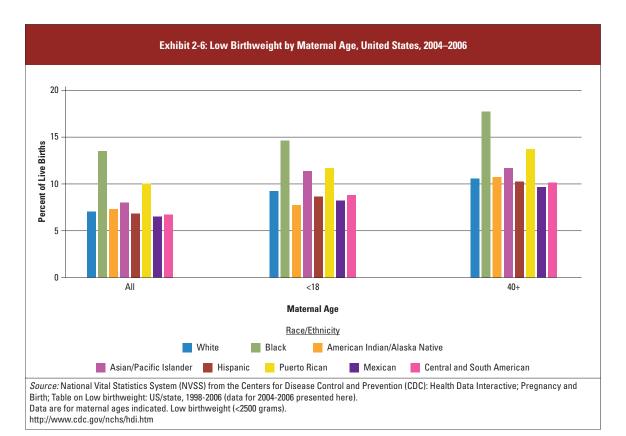
Exhibit 2-5: United States Infant Mortality Rate by Race/Ethnicity, 2003–2005 Mortality rate per 100,000 live births								
Cause of Death All White Black Al/AN API Hispanic								
Diseases of the circulatory system	13.8	11.3	26.3	15.9	15.0	10.7		
Pneumonia	6.4	5.0	13.6	22.8	3.5	5.3		
Maternal complications of pregnancy	42.0	32.2	99.6	20.5	28.6	29.2		
Prematurity and low birthweight 114.7 82.3 298.7 93.3 80.1 90.						90.5		
Birth defects	136.5	131.9	166.5	184.4	110.9	140.6		
Sudden Infant Death Syndrome (SIDS) 53.8 45.8 101.9 111.5 25.1 27						27.1		
Unintentional injury	Unintentional injury 24.9 21.9 44.5 47.8 11.9 15.1							
Homicide	7.6	6.2	14.9	18.2	4.8	6.2		
All causes	682.6	570.5	1,333.0	839.9	479.4	560.3		

Source: NVSS data from the Centers for Disease Control and Prevention (CDC), National Center for Health Statistics: Health Data Interactive, Mortality and life expectancy, table on Infant mortality by cause, US/State, 2000-2005 (data for 2003-2005 presented here). Data are for infants ages 0-364 days. AI/AN=American Indian/Alaska Native; API=Asian/Pacific Islander.

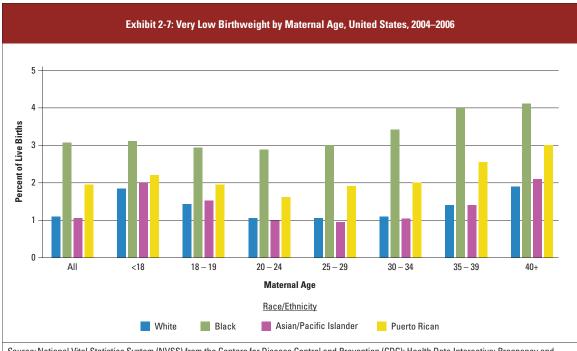
http://www.cdc.gov/nchs/hdi.htm

^{*=} unreliable data.

Prematurity and low birthweight are a primary cause of infant deaths in the U.S.; 1 in 8 infants are born premature each year. 16 Infants who are 2,500 grams or less at birth (low birthweight) are also at increased risk for health concerns and disabilities (e.g., mental retardation, learning problems, hearing and vision loss).¹⁷ Exhibit 2-6 shows that low birthweight is higher for women aged 40 and older compared to women aged 18 and younger. While advanced maternal age is associated with increased low birthweight for all racial and ethnic groups, it is an even higher increased risk for African Americans and Puerto Ricans. 18 Asian/Pacific Islander women aged 18 and younger have the third highest percentage of low birthweight infants following Black and Puerto Rican women.

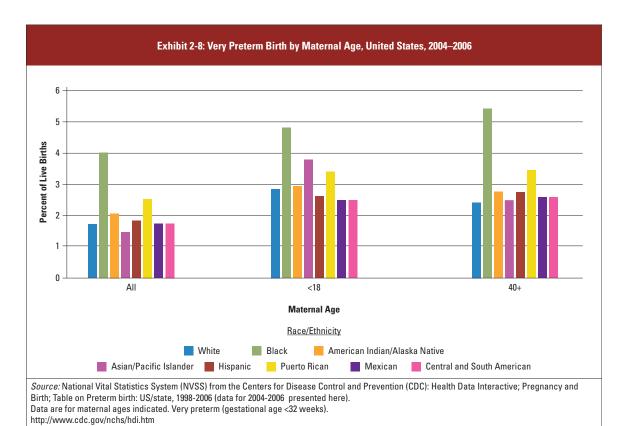


Very low birthweight infants (weighing less than 1500 grams at birth) are approximately 100 times more likely to die compared to those who are born with a normal weight. 9 Non-Hispanic Black infants are up to 3 times more likely, and Puerto Rican babies up to 2 times more likely to be born with very low birthweight compared to other racial and ethnic groups. There is a pattern for very low birthweight by maternal age; low birthweight is high for younger women, declines to its lowest levels at ages 20-24, and then continually increases to the highest levels for mothers ages 40 and older. While the percentage of very low birthweight infants is significantly higher for African Americans and Puerto Ricans, the pattern as it relates to maternal age is similar for all racial and ethnic women (Exhibit 2-7).



Source: National Vital Statistics System (NVSS) from the Centers for Disease Control and Prevention (CDC): Health Data Interactive; Pregnancy and Birth; Table on Low birthweight: US/state, 1998-2006 (data for 2004-2006 presented here). Data are for maternal ages indicated. Very low birthweight (<1500 grams). http://www.cdc.gov/nchs/hdi.htm

Preterm-related deaths account for more than one-third of all deaths during the first year of life and have a dramatic effect on the status of infant health in the U.S.²⁰ Exhibit 2-8 shows that for women less than 18 years of age, very preterm births (infants less than 32 weeks gestation) are highest for Black (4.8%), Asian/Pacific Islander (3.8%), and Puerto Rican (3.5%) women. By age 40 or older, rates of very preterm birth are up to 2.4-fold higher for Black women compared to women of other races.



Adult Mortality

Exhibit 2-9 provides a snapshot of mortality rates for some of the leading causes of death in the U.S., including cardiovascular disease, cancer, HIV/AIDS, diabetes, chronic lower respiratory disease, chronic liver disease and cirrhosis, Hepatitis B and C, kidney disease, and injury deaths. A discussion of mortality disparities, including gender differences, follows.

Exhibit 2-9: United States Adult Mortality Rates by Race/Ethnicity, 2006 Mortality rate per 100,000 population							
Cause of Death	All	White	Black	AI/AN	API	Hispanic	
Diseases of heart	200.2	197.0	257.7	139.4	108.5	144.1	
Cerebrovascular diseases	43.6	41.7	61.6	29.4	37.0	34.2	
Malignant neoplasms	180.7	179.9	217.4	119.4	106.5	118.0	
Trachea, bronchus, and lung	51.5	52.1	56.8	31.2	25.2	20.7	
Colon, rectum, and anus	17.2	16.7	24.3	11.2	10.9	12.6	
Prostate	23.5	21.7	50.5	14.4	9.6	18.1	
Breast	23.5	22.9	31.6	12.8	12.4	15.0	
Chronic lower respiratory diseases	40.5	42.6	28.1	27.4	14.4	17.3	
Influenza and pneumonia	17.8	17.7	19.6	14.2	14.7	15.0	
Chronic liver disease and cirrhosis	8.8	9.1	7.0	22.1	3.5	13.3	
Diabetes mellitus	23.3	21.2	45.1	39.6	15.8	29.9	
HIV	4.0	2.1	18.6	2.4	0.6	4.5	
Unintentional injuries	39.8	41.0	38.3	56.7	16.9	31.5	
Suicide	10.9	12.1	5.1	11.6	5.6	5.3	
Homicide	6.2	3.7	21.6	7.5	2.8	7.3	
All causes	776.5	764.4	982.0	642.1	428.6	564.0	

Source: Health, USA, 2008, Table 28, Age-adjusted death rates for selected causes of death, by sex, race, and Hispanic origin: United States, selected years 1950-2006. (2006 reported here).

Data are based on death certificates. Death rates for Al/AN and API populations are known to be underestimated.

HIV=human immunodeficiency virus; Al/AN=American Indian/Alaska Native; API=Asian/Pacific Islander

http://www.cdc.gov/nchs/hdi.htm

Cardiovascular Disease

Heart disease is the leading cause of death in the U.S. for men, women, and all racial and ethnic minority populations except for Asian/Pacific Islanders (for which it is the second leading cause of death).²¹ More than 26 percent of deaths in 2006 were attributable to heart disease (about 1 in 4 Americans). Exhibit 2-10 shows the overall adult mortality rate from heart disease and specifically for ischemic heart disease and acute myocardial infarction by racial and ethnic group. Both Whites and Blacks have high levels of heart disease compared to the other populations shown, although Blacks have rates that are 31 percent higher than Whites. Approximately 9.6 percent of Black men and 9.0 percent of Black women were living with coronary heart disease in 2006 compared to 8.8 percent of White men and 6.6 percent of White women. 22,23

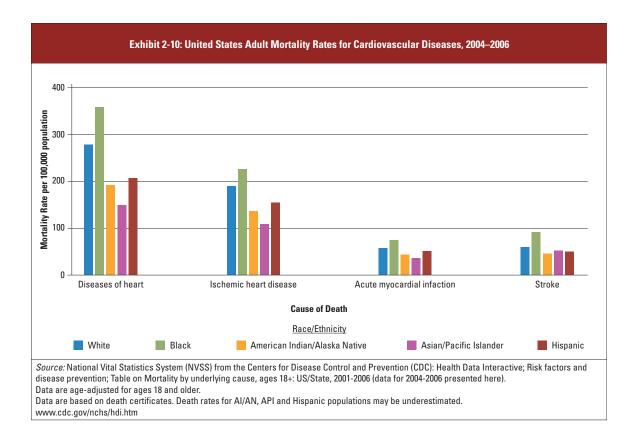
Stroke is the third leading cause of death in the U.S. and the cause of significant disabilities. Nearly 1.1 million people were disabled by stroke in 2005. 24 Like other cardiovascular diseases, stroke deaths demonstrate racial disparities. Blacks and Whites have higher mortality rates for stroke than do other racial or ethnic groups (Exhibit 2-10). However, Blacks die from stroke at rates 1.5 times that of Whites.

Disparities by geography and socioeconomic status (SES) are typical of both heart disease and stroke. People living in the southeastern U.S. are more likely to die of heart disease or suffer from stroke compared to the rest of the country. ^{25,26} Furthermore, there are significant disparities related to SES for heart disease and stroke. For example, individuals who have less than a high school education are three times more likely to report having had a heart attack or stroke than those who are college graduates. Those who earn less than \$15,000 per year are nearly four times more likely to report having had a heart attack and more than six times more likely to report having had a stroke than are those who earn more than \$50,000 per year (Exhibits A-6 and A-7 in Appendix A).

Cancer

Cancer has a disproportionately adverse affect on individuals of low socioeconomic status²⁷ and incidence of some cancers may cluster in certain geographic areas. 28 For example, incidence of deaths from cervical cancer and lung cancer are higher in some of the southern and adjacent states. The incidence of death from ovarian cancer is higher in some of the northern mountain and northern central states. Cancer mortality by race, ethnicity, and gender is discussed below.

Exhibits 2-11 and 2-12 display the mortality rates from 2004-2006 for selected cancers that demonstrate disparities for different populations. Exhibit 2-11 shows mortality rates for cancer of the colon, rectum and anus, cancer of the trachea, bronchus and lung, breast cancer, and prostate cancer. A summary follows of the mortality rates for these cancers and of the populations with the highest disparities:



- Cancers of the colon and rectum (colorectal cancer) are the leading cause of cancer-related mortality in men and women. While colorectal cancer incidence and mortality rates have decreased in all populations over the past decade, mortality rates for American Indians and Alaska Natives have increased. African Americans (33.0 per 100,000) continue to have the highest mortality rate from colorectal cancer.²⁹ The rate for African Americans was more than twice that of American Indians and Alaska Natives, Asian/Pacific Islanders, and Hispanics and 1.4 times that of Whites.
- ◆ Lung cancer is the most common cause of cancer-related death in men and women. While the incidence and mortality rates for men have dropped in the past decade, a similar trend has not occurred in women. African Americans (78.4 per 100,000), Whites (71.2 per 100,000), and men have the highest mortality rates from lung cancer.³⁰ The rate for African Americans was 2.3 times that of Asian/Pacific Islanders and 2.7 times that of Hispanics.
- Breast cancer is the second leading cause of cancer mortality in women. Although the overall breast cancer death rate has dropped steadily, the gap between African Americans and Whites is wider than it was in the 1990s. African Americans (25.5 per 100,000) have the highest mortality rate from breast cancer. 31 The rate for African Americans was 2.4 times that of American Indians and Alaska Natives and 2.8 times that of Asian/Pacific Islanders.

 Prostate cancer is the second leading cause of cancer mortality in men. Although incidence and mortality have been declining, African Americans (25.5 per 100,000) have the highest incidence of prostate cancer.³² The mortality rate for African Americans is 2.2 times that of Whites, 2.6 times that of Hispanics, 2.9 times that of American Indians and Alaska Natives, and 4.5 times that of Asian/Pacific Islanders.

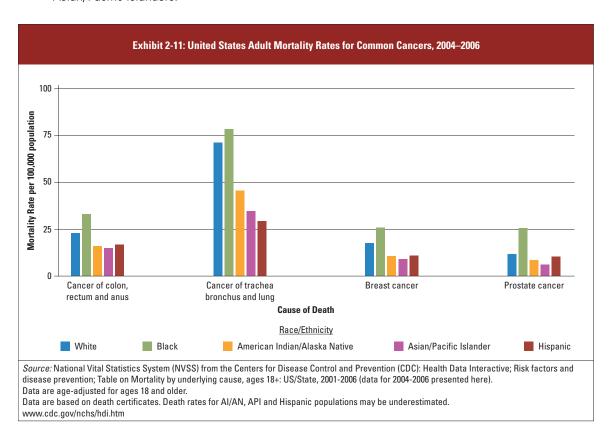


Exhibit 2-12 displays the death rates from 2004-2006 for stomach cancer, cervical cancer, uterine and ovarian cancer, and leukemia. A summary follows of the mortality rates for these cancers and for the populations with the highest disparities.

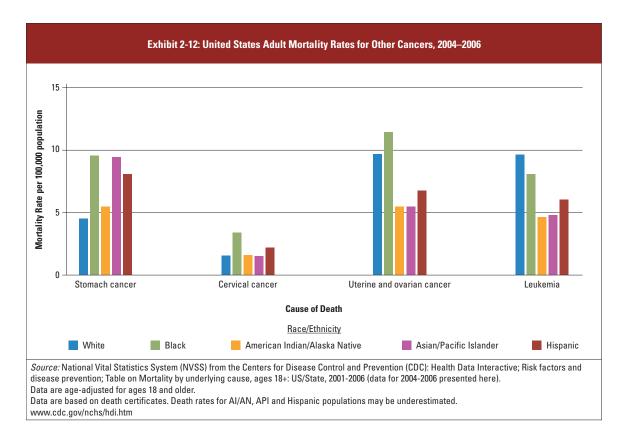
◆ Stomach cancer incidence and mortality has declined in the past 20 years and are lower for women than for men.³³ Blacks (9.6 per 100,000), Asian/Pacific Islanders (9.5 per 100,000) and Hispanics (8.1 per 100,000) have stomach cancer mortality rates that are 1.5- to 2-fold that of Whites and of American Indian and Alaska Natives.

- Cervical cancer mortality rates for Black women (3.4 per 100,000) are more than 2 times that of White, American Indian and Alaska Native, and Asian/Pacific Islander women, and are 1.5 times that of Hispanic women (2.2 per 100,000). As of 2005, cervical cancer screening rates had not reached the Healthy People 2010 target of increasing to 90 percent the proportion of women aged 18 and older who have received a Pap test within the past 3 years. In 2005, 78 percent of women aged 18 and older had a Pap test within the past 3 years. The screening rate in 2005 was highest for Black women at 80 percent, followed by White women at 79 percent and Hispanic women at 74 percent.³⁴
- ◆ African American (11.5 per 100,000) and White women (9.7 per 100,000) continue to have the highest mortality rates of uterine and ovarian cancer—1.5 to 2 times that of the other races and ethnicities (Exhibit 2-12). The rate for Hispanics was 6.8 per 100,000; the rate for Asian/Pacific Islanders was 5.5 per 100,000, and the rate for American Indian and Alaska Natives was 5.5 per 100,000. Endometrial cancer is the most common type of uterine cancer and the most common cancer of the female reproductive system. The endometrial cancer mortality rate for African American women is nearly twice as high as that for White women. However, White women have a higher cancer incidence compared to Black women.³⁵
- ◆ Leukemia mortality since 1975 peaked in the early 1990s and has declined steadily since then. 36 However, Whites (9.7 per 100,000) and African Americans (8.1 per 100,000) continue to have the highest mortality rates for leukemia (Exhibit 2-12).

HIV/AIDS

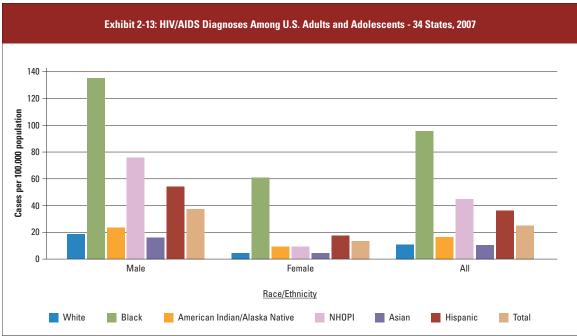
Although the death rate for HIV/AIDS has declined significantly since its peak in 1995, 37 an estimated 1.1 million persons in the U.S. were living with diagnosed or undiagnosed HIV/AIDS in 2007.³⁸ Exhibit 2-13 displays the estimated incidence of HIV/AIDS for adults and adolescents in 2007 using data from a sample of 34 states. Men are far more likely to have HIV/AIDS than are women for all of the populations shown. Overall, men (38.8 cases per 100,000 population) have three times more diagnoses than do women (12.9 per 100,000) and up to 9 times more diagnoses for NHOPI men (76.7 per 100,000) compared to NHOPI women (9.0 per 100,000). Men having sex with men accounted for 53 percent of all diagnoses in 2007 and 71 percent of diagnoses among men. 39

African American adults and adolescents (96.2 per 100,000) have the highest incidence of HIV/AIDS nearly 4 times that of the general population and 9 times that of Whites. In 2007, NHOPI adults and adolescents had the second highest incidence of HIV/AIDS (43.4 per 100,000), followed by Hispanics (36.9 per 100,000), as shown in Exhibit 2-13.



Black women have an incidence of HIV/AIDS that is 18 times that of White women; and Black men, 7 times that of White men (Exhibit 2-13). Compared to other groups Blacks have more deaths and shorter survival rates for this disease than do other populations, and more Black children have HIV/AIDS. An estimated 63 percent of HIV/AIDS diagnoses in 2005 for children under age 13 were for Black children. 40 CDC describes the following barriers that contribute to HIV/AIDS in African Americans: poverty, sexually-transmitted diseases, and the stigma directed at those living with the disease. 41

Exhibit 2-14 displays the death rates from 2004-2006 for other selected diseases, including diabetes, chronic lower respiratory diseases, chronic liver disease and cirrhosis, and kidney disease.



Source: Centers for Disease Control and Prevention (CDC); HIV/AIDS Surveillance Report, Volume 19, 2/18/2009. Table 6a: Estimated numbers of cases and rates (per 100,000 population) of HIV/AIDS, by race/ethnicity, 2007—34 states with confidential name-based HIV infection reporting These numbers do not represent reported case counts, but are point estimates, which result from adjustments of reported case counts. The reported case counts have been adjusted for reporting delays, but not for incomplete reporting. Data include persons with a diagnosis of HIV infection (not AIDS), a diagnosis of HIV infection and a later diagnosis of AIDS, or concurrent diagnoses of HIV infection and AIDS. AI/AN = American Indian/Alaska Native; NHOPI = Native Hawaiian and Pacific Islander; all includes persons of unknown race or multiple races. www.cdc.gov/hiv/topics/surveillance/resources/reports/2007report/default.htm

Diabetes

The number of Americans with diabetes tripled from 1980 to 2006, and it is now the sixth leading cause of death in the U.S. About 10 percent of the nation's adults, ages 20 and older, have diabetes, and 37 percent of those with diabetes are aged 65 and older. 42,43 Racial and ethnic minorities are at high risk for diabetes. Exhibit 2-14 shows that diabetes mortality rates for Blacks were about twice that of Whites between 2004-2006. American Indians and Alaska Natives, as well as Hispanics, also had high mortality rates from diabetes compared to Whites—1.8-fold and 1.5-fold, respectively.

Diabetes is also associated with low SES. For example, individuals who have less than a high school education are 2.3 times more likely to report having had a diagnosis of diabetes than those who are college graduates. Those who earn less than \$15,000 per year are nearly three times more likely to report having diabetes than those who earn more than \$50,000 per year (Exhibit A-8 in Appendix A).

The Indian Health Service indicates that data from their 2005 user population database shows that 16.5 percent of the total adult population they serve has been diagnosed with diabetes. The rates vary by region with 6.0 percent among Alaska Native adults to 29.3 percent among American Indian adults in southern Arizona.44

Chronic Lower Respiratory Diseases

Chronic lower respiratory disease includes many conditions such as emphysema, chronic bronchitis, and asthma. Chronic lower respiratory disease is the fourth leading cause of death in the U.S., accounting for 5.1 percent of deaths in 2006. 45,46 Whites have the highest mortality rate from this group of respiratory diseases (Exhibit 12-14). However asthma, one of the particular chronic respiratory diseases, is a serious problem for racial and ethnic minorities and for those who are poorly educated or have lower incomes (Exhibit A-9 in Appendix A). The significant asthma disparities that are apparent for minority children are associated with poor air quality and other adverse environmental conditions. These disparities are discussed in the environmental determinants of health section.

Chronic Liver Disease and Cirrhosis

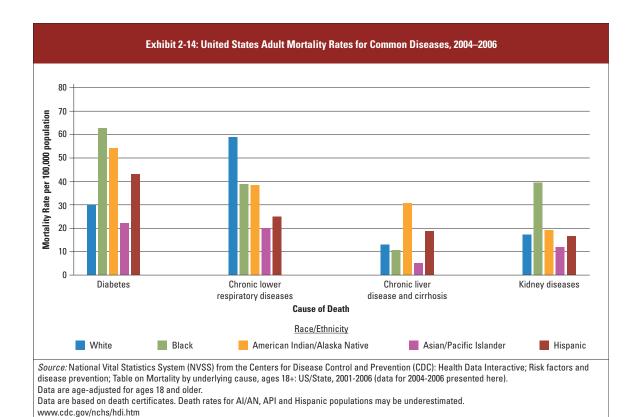
Chronic liver disease and cirrhosis is the 12th leading cause of death in the U.S.⁴⁷ Exhibit 2-14 shows that American Indians and Alaska Natives had rates that were 2.4, 3.0, and 6.5 times the rate of Whites, Blacks, and Asian/Pacific Islanders, respectively. Hispanics died from chronic liver disease and cirrhosis 1.5 times more often than did Whites.

Hepatitis B and C

Hepatitis B and C disproportionately affect racial and ethnic minority populations in the U.S. Approximately 5.3 million Americans are chronically infected with the hepatitis B virus, the hepatitis C virus or both. In the U.S., chronic viral hepatitis is the most common cause of chronic liver diseases, including cirrhosis and liver cancer. In the U.S., Asian Americans, Native Hawaiians, and Pacific Islanders account for over half of the 1.4 million chronic hepatitis B cases. In addition, African Americans, Hispanic/Latinos, and American Indians/Alaska Natives have disproportionately high rates of hepatitis B and hepatitis C infections. 48,49

Kidney Disease

Chronic kidney disease is the ninth leading cause of death in the U.S.⁵⁰ Exhibit 2-14 shows that Blacks had rates that were 2.3 time higher than Whites and 2-3 times higher than other racial and ethnic groups.

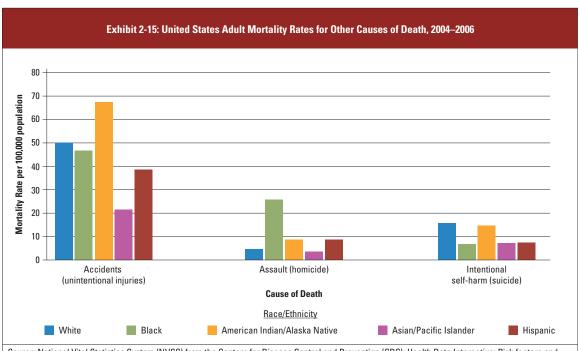


Injury Deaths

Accidents, homicide, and suicide are significant causes of death in the United States, especially for young people (Exhibit 2-15). They were the 5th, 11th, and 15th leading causes, respectively, in 2006 for all ages. 51 Traffic deaths, injuries, and violence, with the often disproportionate impact on young people and minorities, are frequently preventable through a combination of public education, legislation, highly visible law enforcement, and supportive programs. The following is a summary of the mortality rates for injury deaths: 52

◆ American Indians and Alaska Natives have the highest death rate from accidents of those populations shown in Exhibit 2-15. Their rates were more than three times that of Asian/Pacific Islanders and 1.75 times that of Hispanics. Accidents were the third leading cause of death for American Indians and Alaska Natives of all ages in 2006. Motor vehicle deaths accounted for 49 percent of accidental injury for this population—nearly equal to all the other causes of injury together. However, younger people of all races and Hispanics are especially at risk for accidental injury. It is the number one leading cause of death for individuals in the age ranges between 1 and 44 years of age.

- ◆ Whites (15.7 per 100,000) and American Indians/Alaska Natives (14.7 per 100,000) have the highest rates of suicide or intentional self-harm. Exhibit 2-15 shows that their rates are more than twice that of Hispanics, Asian/Pacific Islanders, and Blacks. Young people are particularly at risk for suicide in these populations. In 2006, suicide was the second leading cause of death for American Indian and Alaska Natives in three age categories (10-14, 15-24, and 25-34 years). Suicide was also the second leading cause of death for Whites, ages 15-24 and 25-34. It was the third leading cause of death for Whites ages 10-14. Suicide was also the second leading cause of death for Asian/Pacific Islander youth, ages 15-24.
- Deaths from assaults or homicide (Exhibit 2-15) are nearly eight times higher for Blacks compared to Asian/Pacific Islanders and nearly six times higher compared to Whites. Homicide is the number one cause of death for Blacks, ages 15-24 and 25-34. It is the second leading cause of death for Black youth ages 1-4 and 10-14. For Hispanics, homicide is the second or third leading cause of death in age groups between 5-34. It is the second leading cause of death for American Indian and Alaska Natives between the ages of 1-4.



Source: National Vital Statistics System (NVSS) from the Centers for Disease Control and Prevention (CDC): Health Data Interactive; Risk factors and disease prevention; Table on Mortality by underlying cause, ages 18+: US/State, 2001-2006 (data for 2004-2006 presented here) Data are age-adjusted for ages 18 and older.

Data are based on death certificates. Death rates for AI/AN, API and Hispanic populations may be underestimated. www.cdc.gov/nchs/hdi.htm

Various sources have noted that mortality rates for American Indians/Alaska Natives have been underestimated due to the miscoding of race on death certificates. 53 The Indian Health Service reports mortality rates for this population using adjusted rates to compensate for such misreporting. The data (Exhibit 2-16) compares adjusted mortality rates for American Indians and Alaska Natives from 2002-2003 to mortality rates of all races in the U.S. in 2003. This analysis reveals much higher disparities than are otherwise evident. By this analysis, tuberculosis deaths are nearly nine-fold and alcohol-induced deaths are nearly seven-fold for American Indians and Alaska Natives compared to the general population. Diabetes, unintentional injury, and motor vehicle crash deaths are nearly three times higher. Cervical cancer, homicide, and suicide deaths are about two-fold higher for American Indians and Alaska Natives compared to the general population.

Exhibit 2-16: Mortality Rates for American Indians and Alaska Natives (AI/ANs) in the Indian Health Service Area, 2002–2004; and U.S. All Races, 2003 Age-adjusted mortality rates per 100,000 population						
Major Cause of Death	AI/AN Rate 2002–2004	U.S. All Races Rate 2003	Ratio: AI/ANs to U.S. All Races			
Select Causes	1,027.2	832.7	1.2			
Alcohol Induced	43.6	6.7	6.5			
Cerebrovascular	50.9	53.5	1.0			
Cervical Cancer	4.7	2.5	1.9			
Diabetes	74.2	25.3	2.9			
Heart Disease	231.1	232.3	1.0			
Homicide (assault)	12.2	6.0	2.0			
Motor Vehicle Crashes	51.2	15.3	3.3			
Pneumonia/Influenza	32.3	22.0	1.5			
Suicide	17.9	10.8	1.7			
Tuberculosis	1.7	0.2	8.5			
Unintentional Injuries	94.8	37.3	2.5			

Source: Indian Health Service, Data accessed 9/2/2009 from http://info.ihs.gov/Disparities.asp

Note: Rates are adjusted to compensate for misreporting of American Indian and Alaska Native race on state death certificates. American Indian and Alaska Native death rate columns present data for the three-year period specified. The U.S.All Races column present data for a one-year period. ICD-10 codes were introduced in 1999; therefore comparability ratios were applied to deaths for years 1996-998. Rates are based on American Indian and Alaska Native alone; 2000 census with bridges-race categories.

Behavioral Health

In 2006, costs for treating mental disorders (\$57 billion) were the fourth highest expenditure for medical conditions in the U.S.; 25 percent of mental health expenditures were out of pocket payments by the patient. ⁵⁴ Mental health issues have points of disparity for different populations. In 2008, the Substance Abuse and Mental Health Services Administration (SAMHSA) published a report on serious psychological distress (an overall indicator of past-year mental health problems such as anxiety and/or mood disorders) based on its 2007 National Survey on Drug Use and Health (NSDUH). The report found that 10.9 percent of adults aged 18 or older (24.3 million people) experienced serious psychological distress in the past year. Of those adults, less than half (44.6%) received mental health services during the year, and young adults aged 18 to 25 were less likely than other adults to have received mental health services. In addition, African Americans (86.3%) were slightly less likely to receive prescription medication than were Whites (88.6%) and slightly less likely to receive outpatient services (60.9 %) than were Whites (61.5%).⁵⁵

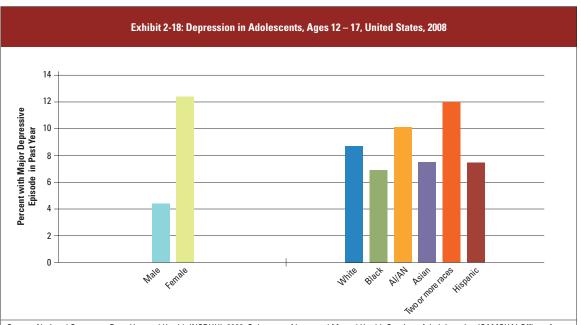
Exhibit 2-17: United States Behavioral Health Indicators, 2005; Serious Psychological Distress in the Past Year								
Cotogony	Age-Group Percentages							
Category	Total	18–25	26 -49	50 and older				
Gender								
Male	8.4	14.4	9.0	5.0				
Female	14.0	22.9	15.8	9.0				
Race/Ethnicity								
White	11.4	19.8	13.3	7.0				
Black	10.7	15.9	10.6	8.0				
AI/AN	21.1	17.8	*	*				
NHOPI	*	*	*	*				
Asian	7.2	16.9	6.7	*				
Two or more races	16.8	25.8	20.2	11.2				
Hispanic	11.7	16.8	11.6	7.5				
Total	11.3	18.6	12.5	7.1				

Source: National Survey on Drug Use and Health, 2005: SAMSHA Office of Applied Studies, Topics on Mental Health, Race/ethnicity, education & employment, and mental health, Mental health measures for racial and ethnic groups (2005), Serious Psychological Distress, Table G39, Serious Psychological Distress in the Past Year Among Persons Aged 18 or Older, by Age Group and Demographic Characteristics: Percentages, 2005. *=not available; AI/AN=American Indian/Alaska Native http://oas.samhsa.gov/index.htm

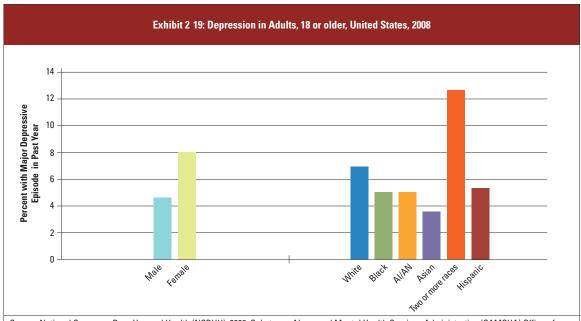
Exhibit 2-17 shows that in 2005, more women (14.0%) experienced serious psychological distress than men (8.4%), and more young adult women (14.0%) and men (8.4%) aged 18-25 had serious psychological distress in comparison to their counterparts aged 50 and older (9.0% and 5.0% respectively). The exhibit also reveals that nearly twice as many American Indians and Alaska Natives (21.1%) had serious psychological distress than did Whites (11.4%), and more multiracial individuals experienced serious psychological distress than their single race counterparts for all age increments (18-25, 26-29, and 50 and older).

Findings from SAMHSA's National Survey on Drug Use and Health indicate that an annual average of 8.5 percent of youth aged 12 to 17 experienced at least one major depressive episode in the past year. 56 Exhibit 2-18 shows that adolescent females are more than twice as likely to have had a major depressive episode in the past year as adolescent males. In addition, significantly more multiple race adolescents followed by American Indian and Alaska Native adolescents experienced a major depressive episode in the past year when compared to single-race White, Black, Asian, and Hispanic adolescents.

Comparisons of major depressive episodes for youth (ages 12-17) and adults (ages 18 or older) by gender and racial/ethnic background are graphically displayed in Exhibits 2-18 and 2-19. For both populations, females are much more likely to have had at least one major depressive episode within a year. Multiple race adults and youth also suffer from the highest levels of depression for the groups shown.



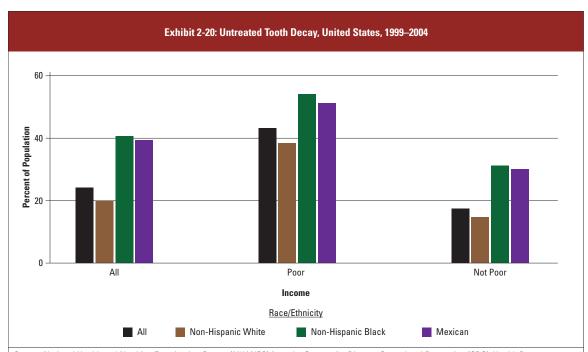
Source: National Survey on Drug Use and Health (NSDUH), 2008: Substance Abuse and Mental Health Services Administration (SAMSHA) Office of Applied Studies. IN: Health, U.S. 2008; Table G-41: Results from the 2008 National Survey on Drug Use and Health: National Findings. Had at least one major depressive episode (MDE) in the past year among persons aged 12 to 17, by demographic characteristics: percentages, 2008 AI/AN=American Indian/Alaska Native. Data available only for races/ethnicity shown http://www.oas.samhsa.gov/



Source: National Survey on Drug Use and Health (NSDUH), 2008: Substance Abuse and Mental Health Services Administration (SAMSHA) Office of Applied Studies. IN: Health, U.S. 2008; Table G-40: Results from the 2008 National Survey on Drug Use and Health: National Findings. Had at least one major depressive episode (MDE) in the past year among persons aged 18 or older, by demographic characteristics: percentages, 2008. AI/AN=American Indian/Alaska Native. Data available only for races/ethnicity shown. http://www.oas.samhsa.gov/

Oral Health

Oral, dental, and craniofacial diseases and disorders are common problems for all populations. However, disparities in dental health among minority populations are often overlooked. One measure of dental health—tooth decay—is delineated by race and poverty in Exhibit 2-20. Non-Hispanic Blacks and Mexican Americans who are not poor have about 2 times more untreated tooth decay than do non-Hispanic Whites. Also, the percentage of tooth decay in those individuals who are poor is 2 to 3 times that of the non-poor. Poor non-Hispanic Whites, non-Hispanic Blacks, and Mexican-Americans have roughly similar proportions of tooth decay. Similarly, dental health care (Exhibit A-10 in Appendix A) is self-reported as being less available for minorities, the less educated, and those with low incomes.



Source: National Health and Nutrition Examination Survey (NHANES) from the Centers for Disease Control and Prevention (CDC): Health Data Interactive; Health Conditions; Table on tooth decay, untreated: US, 1988-2004 (data for 1999-2004 presented here). Data only available for races/ethnicity shown. Data are age-adjusted for ages 20 and older.

Poverty status according to U.S. Census Bureau "poverty income ratio" definitions. Poor (<100% of the poverty threshold); not poor (200% of the poverty threshold or greater).

www.cdc.gov/nchs/hdi.htm

DETERMINANTS OF HEALTH

The health disparities described above do not exist in a vacuum or develop randomly. They are the result of a host of interrelated factors that affect individuals across their lifespan, from birth to death. These factors, commonly called "determinants of health," influence the health and well-being of individuals and communities for good or ill; together they conspire to impact health. 57,58 Understanding the determinants of health is critical for devising strong public policy and action that promotes health equity and the elimination of health disparities. 59 The following is a discussion of the determinants of health under four broadly accepted categories: social determinants; behavioral determinants; environmental determinants; and biologic and genetic determinants. 60

Social determinants of health

Health equity cannot be achieved without addressing the health of all racial and ethnic groups. There is a powerful link between social factors and health.⁶¹ Social and economic policies have a direct impact on the health and well-being of those who live and work under those policies. Interventions and policies that purport to promote health must be based on evidence and result in action, and they must address daily living conditions and issues related to power, money, and resources.

Health equity also cannot be achieved without addressing gender health. The concept of gender refers to male and female roles and relationships, which are shaped by social, economic, political, cultural and other factors—rather than by biology. Socially constructed roles and relationships have a direct bearing on health and well being and can lead to increased illness or death from preventable causes. A gender approach to health examines how gender differences determine access to benefits and the way in which technology, information, resources, and health care are distributed.⁶²

Poverty and Socioeconomic Status—Poverty and low socioeconomic status are fundamental predictors of adverse health outcomes. ^{63,64} Generally, differences in health outcomes or access to health care fall along the fault line of SES. Even though medical breakthroughs over the last 50 years have significantly improved health outcomes for minorities, it is still generally true that a health/healthcare gap exists between the "haves" and the "have-nots" in this country. Socioeconomic status plays a significant role in health outcomes, especially as it relates to access to health insurance and health care, quality of health services, healthy lifestyle access and awareness, and health literacy. Studies suggest that the increase in the prevalence of health disparities can be associated with the growing gap in SES—with gains in health status occurring predominantly among those in higher socioeconomic groups. 65,66

The last decade has witnessed a marked growth in the prevalence of low-income populations in this country, with increases from 31.6 million (11.3 percent of the population) in 2000 to 39.8 million (13.2 percent of the population) in 2008.⁶⁷ The South had the highest percentage (14.3%) of individuals living in poverty. Areas of high poverty (25-56%) exist in counties throughout the U.S., such as those along the Mississippi River (Exhibit A-11 in Appendix A).

Whites are the majority population, and they also represent the majority of the 39.8 million poor in America. In 2008, 67.8 percent of the nation's poor were White of any ethnicity (42.7 percent were non-Hispanic Whites); 27.6 percent were Hispanics of any race, and 24 percent were African Americans. 68 However, minority populations are disproportionately represented in the ranks of poverty compared to Whites. The percentage of persons living at less than 100 percent of the poverty level in 2005–2007 was 10.5 percent for Whites, 11.0 percent for Asians, 16.7 percent for NHOPI, 21.5 percent for Hispanics, 25.3 percent for African Americans, and 25.8 percent for American Indians and Alaska Natives (Exhibit 2-21).

	Less than 50 percent of the poverty level	Less than 100 percent of the poverty level	Less than 125 percent of the poverty level
Gender			
Male	5.1%	11.8%	15.9%
Female	6.4%	14.6%	19.3%
Race/Ethnicity			
White	4.4%	10.5%	14.2%
Black	11.9%	25.3%	31.7%
AI/AN	11.9%	25.8%	32.9%
Asian	5.0%	11.0%	14.6%
NHOPI	6.7%	16.7%	21.8%
Some other race	8.6%	22.0%	29.9%
Two or more races	7.7%	17.3%	22.3%
Hispanic	8.4%	21.5%	29.2%
AII	5.7%	13.3%	17.6%

Source: Percent of individuals living at less than different federal poverty levels compared to total population of the corresponding category. Data from U.S. Census Bureau, American FactFinder. IN: People, Poverty; 2005-2007 American Community Survey, characteristics of people at specified levels of poverty, Table S1703, United States; Characteristics of people at specified levels of poverty in the past 12 months. http://factfinder.census.gov/servlet/STTable?_bm=y&-context=st&gr_name=ACS_2007_3YR_G00_\$1703&-ds_name=ACS_2007_3YR_G00_& tree_id=3307&-redoLog=false&-_caller=geoselect&-geo_id=01000US&-format=&_lang=en

The health outcomes experienced by economically disadvantaged Whites are analogous to those experienced by racial and ethnic minorities and include, but are not limited to, poorer quality health care and higher levels of morbidity and mortality.

Exhibit 2-22 shows that poverty also tracks with gender, living arrangements, educational attainment, and disability. Women are more likely to be poor compared to men, especially if they are sole household providers. Those without a high school education are at least five times more likely to experience poverty than are those with a bachelor's degree or higher. In addition, persons with disabilities are almost twice as likely to be poor compared to persons without disabilities.

Poverty tracks with employment levels. In 2006, 23.4 percent of those who lived below the poverty level were unemployed compared to 6.6 percent of the total population (Exhibit 2-23). African American households earned 63 cents (\$31,969 median income) and Hispanic households earned 75 cents (\$37,781 median income) for every dollar earned by White households (\$50,673 median income).⁶⁹ As shown in

	Less than 50 percent of the poverty level	Less than 100 percent of the poverty level	Less than 125 percent of the poverty level
Living Arrangement			
In married-couple family	1.8%	6.0%	8.9%
In female householder, no husband present households	15.1%	30.9%	38.1%
In other living arrangements	10.7%	22.4%	28.9%
Educational Attainment			
Less than high school graduate	8.4%	23.6%	32.3%
High school graduate (includes equivalency)	4.5%	11.4%	16.0%
Some college or associate's degree	3.3%	7.7%	10.7%
Bachelor's degree or higher	1.8%	3.6%	4.9%
Disability			
With any disability	7.7%	21.4%	28.8%
No disability	5.0%	11.2%	14.9%
All	5.7%	13.3%	17.6%

Source: Percent of individuals living at less than different federal poverty levels compared to total population of the corresponding category. Data from U.S. Census Bureau, American FactFinder. IN: People, Poverty; 2005-2007 American Community Survey, Characteristics of people at specified levels of poverty, Table S1703, United States; Characteristics of people at specified levels of poverty in the past 12 months. http://factfinder.census.gov/servlet/STTable?_bm=y&-context=st&gr_name=ACS_2007_3YR_G00_S1703&-ds_name=ACS_2007_3YR_G00_&tree_id=3307&redoLog=false&-_caller=geoselect&-geo_id=01000US&-format=&-_lang=en

Exhibit 2-23, there are racial and ethnic disparities in employment levels. Asians (5.3%) and Whites (5.5%) have the lowest levels of unemployment. Multiracial individuals (10.3%), Blacks (12.8%), and American Indians and Alaska Natives (12.9%) have the highest levels of unemployment. Those with disabilities have greater levels of unemployment, and there is an indirect relationship between educational attainment and employment status. Lower educational attainment predicts high unemployment (Exhibit 2-23).

Educational Attainment—Low educational achievement is a powerful predictor of adverse health outcomes. 70,71 As is clear from the several exhibits that link a host of health indicators with educational status (Exhibits 2-24, 2-25, 2-26), graduation from high school is a protective factor against adverse health outcomes. Low educational status is inextricably linked with poverty. Minority populations often have lower records of educational achievement, which in turn reduces earning power. Between 1972 and 2006, the high school dropout rate was lowest for Whites and highest for Hispanics. For example, in 2006, the dropout rate was 6 percent for Whites, 11 percent for Blacks, and 22 percent for Hispanics. 22 Exhibit 2-24 links educational attainment to gender, race, and ethnicity. While men and women have similar levels of

academic achievement, African Americans and Hispanics have lower academic achievement compared to Whites and Asians. The gap for African Americans and Hispanics widens at higher levels of academic experience. The proportion of Asians who seek education beyond high school is greater than that of Whites, African Americans and Hispanics.

Asians, Native Hawaiians and Pacific Islanders are often grouped together for data analysis, yet these populations and their component subpopulations often have distinct cultural and ethnic identities. These populations also may evidence very different constellations of health outcomes. Such differences become apparent only when data is analyzed at levels specific to each population and subpopulation. For example, there exists what some call the "model minority myth." One component of this myth is the assumption of high educational attainment among all Asian groups. Exhibit 2-25 shows that while the percentage of Asians who

Exhibit 2-23: United States Employment Status, 2005–2007					
Population Category	Percent Employed	Percent Unemployed			
Race					
White	60.7	5.5			
Black	54.2	12.8			
AI/AN	51.9	12.9			
Asian	61.1	5.3			
NHOPI	61.5	8.4			
Some other race	62.9	8.2			
Two or more races	57.8	10.3			
Ethnicity a					
Hispanic	62.0	7.8			
Non-Hispanic	60.6	5.3			
Poverty Status b					
Below poverty level in past 12 months	38.2	23.4			
Disability Status					
With any disability	37.3	13.2			
Educational Attainment ^C					
Less than high school graduate	54.4	10.0			
High school graduate	69.5	6.4			
Some college or associate's degree	75.5	4.9			
Bachelor's degree or higher	82.1	2.7			
All ^a	60.0	6.6			

Source: U.S. Census Bureau, American FactFinder, Data Sets, American Community Survey, 2005-2007, Table S2301-Employment status, United States.

AI/AN=American Indian/Alaska Native; NHOPI=Native Hawaiian and Other Pacific Islander.

http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=01000US&gr_name=ACS_2007_3YR_G00_S2301&-ds_name=ACS_2007_3YR_G00_

Population 16 years and over.

Population 20 to 64 years.

Population 25 to 64 years.

includes equivalency.

	Exhibit 2-24: United States Educational Attainment, 2007				
Category	Percentage				
Galegory	High school graduate or more	Some college or more	Bachelor's degree or more	Advanced degree	
Gender					
Male	83.9	53.8	28.2	10.7	
Female	85.0	54.8	26.7	9.6	
Race/Ethnicity					
White	87.0	56.6	29.1	10.7	
Black	80.1	45.8	17.3	5.8	
Asian	85.8	68.0	49.5	19.6	
Hispanic	60.6	32.4	12.5	3.9	

Source: U.S. Census, People and households, data by subject, education, educational attainment, current population survey, CPS 2007. IN: Report: Educational attainment in the United States: 2007, Table 1.

http://www.census.gov/population/www/socdemo/educ-attn.html

complete a bachelor (29.2%) or graduate degree (19.2 %) is markedly higher than Whites (18.0 % and 10.5%), educational attainment for various Asian subgroups reveals a different story. The high percentage of Asian Indians, Taiwanese, and other Asian subgroups who complete a bachelor-level or graduate degree masks the lower educational attainment of Cambodians, Hmong, Laotians, and other Asian Americans.

In recent years, the wages of high school dropouts have declined, and the wage differential between high school graduates and dropouts has increased. 73 Low economic status, low educational status, and poor health outcomes generally track together. Improving educational outcomes is a key strategy for reducing health disparities.

In order to accurately measure the extent of low educational achievement or the effectiveness of interventions, it is necessary to have reliable measures of educational status. There is some disagreement regarding the best way to measure the high school graduation rate, which is a key marker of educational success. The "status completion rate" used by the U.S. Census (Exhibit 2-24) and the National Center for Education Statistics (NCES) includes completion of high school equivalency exams, such as the GED. The National Bureau of Economic Research (NBER) suggests that status completion rates overestimate U.S. graduation rates, underestimate disparities in graduation rates, and bias interpretation of changes over time. For example, NBER research studies, using other measures, conclude that U.S. high school graduation rates have declined since the late 1960s. It also concludes that there is no evidence of convergence of

Percentages represent attainment by race for persons ages 25 years and older. Race categories exclude persons of Hispanic ethnicity.

^aIncludes equivalency.

Exhibit 2-25:	United States Education	eational Attainment Asian Americans, Native Hawaiians and Pacific Islanders, 2006			
Population	Percent Less than High School	Percent High School Diploma (or equivalency)	Percent Some College or Associates Degree	Percent Bachelor Degree	Percent Graduate or Professional Degree
White	13.5	30.3	27.6	18.0	10.5
Asian	14.1	17.8	19.7	29.2	19.2
Native Hawaiian/ Pacific Islander	13.5	38.5	31.4	11.8	4.8
Asian Indian	10.0	11.9	10.9	31.8	35.5
Cambodian	35.3	28.7	22.3	11.0	2.6
Chinese	18.1	16.8	15.3	25.2	24.6
Hmong	39.7	24.3	23.5	10.4	2.2
Indonesian	4.7	20.7	27.5	32.9	14.1
Korean	8.7	20.5	18.8	34.4	17.5
Laotian	37.6	30.0	21.4	9.3	1.8
Pakistani	12.8	16.1	16.5	31.0	23.6
Taiwanese	4.6	8.3	11.7	31.5	43.9
Vietnamese	27.7	23.9	22.2	18.8	7.4
Chamorro/ Guamanian	19.4	34.1	30.0	11.1	5.3
Micronesian	18.5	36.4	29.9	10.6	4.6
Native Hawaiian	10.8	39.3	32.5	12.3	5.1
Polynesian	12.0	40.0	31.9	11.5	4.7
Samoan	16.5	42.8	28.5	8.5	3.7

Source: Asian American, Native Hawaiian and Pacific Islander Population Demographics - 2006 Data Asian & Pacific Islander American Health Forum. http://www.apiahf.org

minority-majority high school graduation rates—in contrast to findings based on status completion rates. Estimates of U.S. minority graduation rates vary dramatically (from 50 to 85 percent) using different measures.⁷⁴ Furthermore, evidence shows that individuals earning GEDs do no better than dropouts in the labor market.⁷⁵

Exhibit 2-26 summarizes the link between health status, poverty, and education, especially in relation to race and ethnicity. Clearly, self-identified health status dramatically improves and directly corresponds with educational status and income levels. Blacks, Hispanics, and multiracial individuals self-identify as having poor health status in markedly greater proportion than do Whites or "other" populations.

	Exhibit 2-26: Health Status, United States and Territories, 2008				
	Self-identified "fair or poor health" status				
Race/Et	hnicity	Educatio	n	Income	
Category	Percent ^a	Category	Percent ^a	Category	Percent
AII	15.0	All	15.0	AII	15.0
White	12.8	Less than H.S.	34.4	Less than \$15,000	38.5
Black	20.3	H.S. or G.E.D.	19.2	\$15,000 \$24,999	27.4
Hispanic	20.0	Some post-H.S.	14.1	\$25,000 \$34,999	18.1
Other	13.7	College graduate	7.1	\$35,000 \$49,999	13.2
Multiracial	17.1			More than \$50,000	6.4

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Prevalence and Trends Data 2008; Health Status.

Housing—Housing has been recognized as a prerequisite for health. Access to housing supports the basic human need for shelter and bears important implications for the health and well-being of families.⁷⁷ However, a number of housing-related factors can contribute to poor health or harm the health individuals (e.g., housing quality, affordability, and stability). 78,79

Lack of affordable housing limits choices about where families live, and directly inhibits families' ability to meet basic needs, such as nutrition, clothing, and health care. 80 Housing costs can relegate families to live in disadvantaged neighborhoods that are characterized by substandard and unsafe housing, overcrowded neighborhoods with high poverty rates, and limited opportunities for healthy choices.⁸¹ "Low-income and/or ethnic minority communities already burdened with greater rates of disease, limited access to health care, and other health disparities are the same populations living with the worst built environment conditions. Studies have shown that negative aspects of the built environment tend to interact with and magnify health disparities, compounding already distressing conditions."82

The Robert Wood Johnson Foundation Commission to Build a Healthier America recognized conditions within homes, neighborhoods surrounding homes, and housing affordability which often coexist and place individuals at greater risk for multiple health problems. The following are examples of such conditions:⁸³

◆ Lead poisoning, which irreversibly affects brain and nervous system development, results in lower intelligence and reading disabilities.

^aMedian values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=HS&yr=2008&qkey=4414&state=US

- Substandard housing conditions, including water leaks, poor ventilation, dirty carpets and pest infestation, can lead to an increase in mold, mites and other allergens that contribute to the development and exacerbation of respiratory conditions (e.g., asthma).
- Exposure to very high or very low indoor temperatures can be detrimental to health (e.g., increased risk of cardiovascular disease or death among vulnerable populations such as the elderly).
- Structural features of the home, such as steep staircases and balconies, lack of safety devices, and substandard heating systems, can lead to injuries.
- Residential crowding has been linked both with physical illness (e.g., infectious diseases such as tuberculosis and respiratory infections) and psychological distress among both adults and children.

High housing costs, poor housing quality, unstable neighborhoods, overcrowding, and homelessness also contribute to housing instability.⁸⁴ Studies show that stable housing contributes to improved academic performance by children and provides a stable environment for delivering care to individuals with chronic illnesses and disabilities, as well as the elderly.

A review of the U.S. Department of Housing and Urban Development's (HUD) Public Housing Authority (PHA) and Office of Housing Programs (OHP) data (Exhibit 2-27) shows that the majority of assisted housing residents are White (51.7% and 60.4%). However, minorities are disproportionately represented in HUD housing. Blacks and Hispanics represent only 12.9 percent and 15.4 percent of the population (Exhibit 2-1), yet Blacks are represented in HUD housing at levels of 44.1 percent (PHA) and 32.6 percent (OHP). Hispanics are represented at 19.5 percent in the public housing authority programs. Households that had a female head or children had high participation in HUD housing (79.9% and 73.8% for female heads; 49.1% and 26.9% for homes with children), in contrast to homes with two adults (9.3% each for both programs). Householders with disabilities also had high participation levels in HUD housing.

Food Security—Adequate food intake is a fundamental human need for survival. Indeed, it is a prerequisite for health and well-being.⁸⁵ The 1996 World Food Summit defined **food security** as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life."86 The U.S. Department of Agriculture (USDA) currently defines food security for households as having, access, at all times, to enough food for an active, healthy life for all household members."

In the U.S., unlike other parts of the world, starvation is nearly non-existent; yet some families, especially the poor, struggle to maintain a steady diet of nutritional food. This latter scenario has been called "food insecurity" and is defined by the USDA as: "a household-level economic and social condition of limited or

Demographic Indicators for Households	Assisted Households in Public Housing Authority Programs ^a	Assisted Households in Office of Housing Programs ^b
Reported households ^C	2,779,073	1,402,146
Race-ethnicity (% of total)		
White	51.7%	60.4%
Black	44.1%	32.6%
AI/AN	0.8%	-
Asian	2.4%	-
NHOPI	0.4%	-
Multiple Race	0.6%	-
Other race/ethnicity	-	5.0%
Missing data	-	2.0%
Total	100%	100%
Non-Hispanic	80.5%	87.2%
Hispanic	19.5%	12.8%
Total	100%	100%
Percent of Households:		
With female head	79.9%	73.8%
With male head	20.1%	26.2%
With two adults ^d	9.3%	9.3%
With disability ^e	36.8%	23.4%
With children	49.1%	26.9%

Source: Data provided to OMH by HUD, 10/16/2009 and are for the 18-month period ending September 30, 2008. Data excludes all records that show head of household to be under 15 years of age or over 105 years of age, as well as any record showing type of action to be either "end of participation" or "portability move-out."

AI/AN =American Indian/Alaska Native; NHOPI = Native Hawaiian/Pacific Islander.

Data are from the Public and Indian Housing Information System (PIC). Includes all programs (public housing; moderate rehabilitation programs; and tenant-based vouchers, which also include a small number of Section 8 certificates).

Data are from the Tenant Rental Assistance Certification System (TRACS). Includes all programs (Section 8 project-based; rent supplement; Rental

Assistance Program; Below Market Interest Rate; Section 236; Section 202/8; Section 202/PRAC; Sec 811/PRAC.).

Reflects the number of households with tenant data reports in either the PIC or TRACS system.

Indicates if there is a head and either a spouse or co-head present.

Reflects whether the head or a spouse (if any) or a co-head (if any) is disabled, regardless of age.

Reflects households with at least one child under the age of 18.

http://www.hud.gov/offices/pih/systems/pic/

http://www.hud.gov/offices/hsg/mfh/trx/trxsum.cfm

uncertain access to adequate food."88 Food insecurity is to be differentiated from "hunger," which is defined as an "individual-level physiological condition that may result from food insecurity."89 Categories of food insecurity are defined as follows: 90

- Low food security (previously identified as "food insecurity without hunger"): Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- Very low food security (previously identified as "food insecurity with hunger"): Reports of multiple indications of disrupted eating patterns and reduced food intake.

In November 2009, the USDA released its findings that food insecurity in the U.S. had reached its highest level since 1995, when the first national food security survey was conducted. 91 The USDA reported that in 2008, 14.6 percent of American households were food insecure and "unable to put food on the table at times during the year."92 This represents 16.7 million children and 32.4 million adults living in 17.1 million households. 93 This level of food insecurity was up from that of the previous year's level of 11.1 percent. 94 In 2008, 5.7 percent of U.S. households (6.7 million households) faced very low food security, up from only 4.1 percent in 2007.⁹⁵

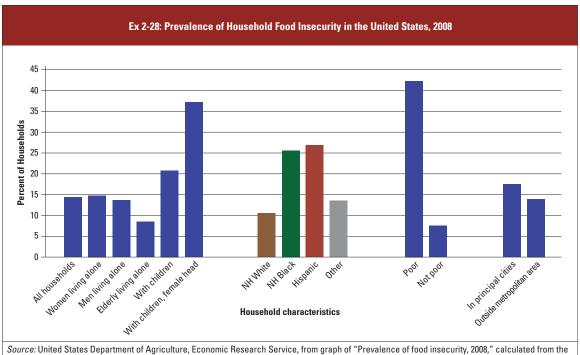
Depending on the degree of food deprivation, the health outcomes range in severity—from starvation and malnutrition to a host of less severe, yet serious consequences that result from food insecurity. 96 For example, food-insecure individuals may limit their purchases of necessary medications in order to buy food. Limitations and variability in food sources may adversely affect diabetic patients for whom dietary limitations and specifications are necessary for controlling the disease. Children who live in food-insecure homes are susceptible to the consequences of poor nutrition (e.g. stunted growth, cognitive disabilities, and iodine and iron deficiencies). Paradoxically, food insecurity may foster overweight and obesity, especially in women, because fresh fruits, vegetables, and low-calorie foods are too expensive to purchase. Further, variability in food supply may promote an unhealthy cycle of alternating underconsumption and overconsumption.97

Food insecurity in the U.S. is highly associated with poverty (Exhibit 2-28) and is more common in cities, as shown in Exhibit 2-28, and in the South. 98 Disparities in food security exist for minorities. Blacks and Hispanics experience about 2.5-fold higher levels of food insecurity than do Whites. Households with children, especially when headed by a female without a spouse, have more than 2-fold levels of food insecurity compared to all households (Exhibit 2-28). These same patterns of disparity exist for very low food security-households. 99

The World Health Organization (WHO) describes the following three pillars of food security: 100

- ◆ Food availability sufficient quantities of food available on a consistent basis.
- ◆ Food access having sufficient resources to obtain appropriate foods for a nutritious diet.
- Food use appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

These three pillars serve as points of intervention to foster health equity through ensuring food security for all Americans.



December 2008 current population survey food security supplement.

NH = non-Hispanic; poor = income-to-poverty level < 1.00; not poor = income-to-poverty level 1.85 and over.

http://www.ers.usda.gov/Briefing/FoodSecurity/stats_graphs.htm#food_secure

The Health System—A report developed for the World Health Organization's Commission on the Social Determinants of Health specified that "the way health systems are designed, operated and financed act as a powerful determinant of health." ¹⁰¹ Health systems were broadly defined to include all actions whose primary purpose is to promote, maintain, or restore health of all groups. 102 These systems can promote prevention and have the potential to leverage, intervene, and act on the range of factors that influence health. Inasmuch, efforts to improve health must consider determinants that exist not only outside, but also within the health system. 103

Healthcare in the U.S. is supported through many public and private systems. One example is TRICARE, which provides health care coverage for the Department of Defense's service members, dependents, and retirees. A recent study examined disparities in health status, access to care, satisfaction with care, and preventive care for TRICARE beneficiaries. The study found fewer racial and ethnic health disparities among TRICARE beneficiaries compared to racial and ethnic minorities in the civilian population. While the study found that some disparities do exist, fewer disparities for TRICARE beneficiaries could be attributable to equitable access to high-quality health care. 104 Another study on the military oral health care system found that disparities in untreated caries and recent dental visits that exist between Black and White civilians was absent among enlisted individuals. 105

Quality, Cost, and Coverage—Access to quality healthcare is an important dimension in achieving health equity. 106 Inadequate access to quality healthcare has adverse consequences, both on a personal and societal level, translating into years of life lost, decreased productivity, and increased burden of disease. The National Healthcare Quality Report and the National Healthcare Disparities Report track a number of core measures of healthcare quality and access. Consistently, the results show large disparities by race and socioeconomic status. While some measures of healthcare quality are improving, over 60 percent of disparities in quality of care have stayed the same or worsened for African Americans, Asians, American Indians and Alaska Natives, and poor populations; 56 percent for Hispanics. Additionally, while some measures of healthcare access are improving, 80 percent of disparities in access to care have stayed the same or worsened for Hispanics; 60 percent for African Americans, Asians, and poor populations; and 40 percent for American Indians and Alaska Natives.

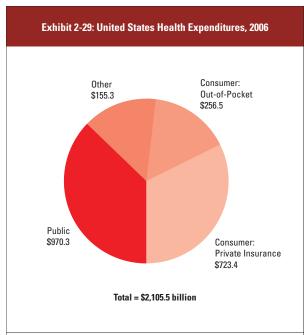
While access to quality healthcare alone will not eliminate health disparities, many Americans are disadvantaged because they are uninsured or underinsured. A recent Institute of Medicine report concluded that there is a compelling case for action to ensure that Americans have health care coverage. The report stressed that not only is insurance integral for better health but also that high rates of uninsurance has adverse effects on those who are insured. 107 The U.S. spent more than \$2 trillion in 2006 for health care (Exhibit 2-29). Fortysix percent is financed by public sources (\$970.3 billion), 35 percent (\$723.4 billion) is covered through private insurance, 12 percent (\$256.5 billion) is supported by individuals out-of-pocket, and 7.4 percent is paid for by other sources (\$55.3 billion). Despite this level of spending, a reported 46 million Americans remain uninsured.

Exhibit 2-30 shows the percent distribution of total expenditures for select health conditions in the U.S. and the source of payment. In 2006, Medicare paid nearly 49 percent of the total expenses for heart conditions, approximately 46 percent of the total expenditures for kidney disease, and almost 50 percent of the total

"During challenging economic times, the pool of those in need of vital food assistance expands...we must ensure that individuals do not fall through the cracks and can access nutritional services with dignity and respect."

- Tom Vilsack, U.S. Secretary of Agriculture, 2009

expenditures for cerebrovascular disease. In contrast, private insurers paid nearly 48 percent of total expenditures from cancer, 50 percent of the total expenditures for infectious diseases, and 53 percent of total expenditures for gall bladder, pancreatic, and liver disease. Twenty-five percent of total expenses for mental disorders and 26 percent of total expenditures for hypertension were paid out of pocket, respectively.



Source: U.S. Census Bureau, Table 126, National health expenditures by object, and projections: from the U.S. Centers for Medicare & Medicaid Services, Office of the Actuary, "National Health Statistics Group." Otherincludes non-patient revenues, privately funded construction, and

http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccou ntsHistorical.asp

A study of 160,000 Medicare beneficiaries found that "Medicare costs for White patients averaged \$20,166 in the six-month period examined. By comparison, the average costs for Black patients was about 30 percent higher, or \$26,704, and nearly 60 percent higher, or \$31,702, for Hispanic patients. While minorities generally receive fewer medical interventions than Whites, this study found that they receive more invasive, intensive and costly treatment at end of life. 108

The absence of health insurance is a key factor in health disparities. When compared to insured individuals, uninsured populations perform worse on nearly 90 percent of quality measures and on all access measures. Exhibit 2-31 provides one measure of healthcare coverage as it relates to race and ethnicity, educational attainment, and income. Three times as many Hispanics and almost two times as many Blacks say that they have no health

coverage. Not surprisingly, those who have not graduated high school or earn less than \$15,000 per year are markedly less likely to have coverage compared to others with higher education or income—and the differences have direct correlation to status levels. Those who do not have a high school diploma are six times more likely to say that they have no coverage; those with less than \$15,000 income per year are eight times more likely to say they have no coverage—compared to those with the highest levels of education or income.

Exhibit 2-30: Expenditures for Selected Medical Conditions, United States, 2006									
Conditions	Total Expenses (in millions)	Percent distribution of total expenses by source of payment							
		Out of pocket	Private insurance	Medicare	Medicaid	Other b			
Heart conditions	78,033	8.2	30.6	48.6	7.7	4.9			
Trauma-related disorders ^C	68,142	11.5	37.2	26.3	9.7	15.3			
Cancer	57,501	*	47.8	28.0	4.9	5.0			
Mental disorders	57,452	24.9	27.6	21.9	17.7	7.8			
COPD, asthma	51,320	17.0	29.4	30.6	13.8	*			
Hypertension	48,508	26.3	29.6	27.6	10.0	6.6			
Diabetes mellitus	48,341	19.7	27.5	33.2	13.4	6.3			
Kidney disease	26,188	5.6	33.2	46.2	9.6	*			
Infectious diseases	15,736	12.4	50.2	10.6	21.2	5.5			
Gallbladder, pancreatic, and liver disease	15,446	6.1	53.2	23.6	*	*			
Cerebrovascular disease	13,278	*	20.7	49.6	*	*			

Source: Center for Financing, Access and Cost Trends, Agency for Healthcare Research and Quality (AHRQ): Medical Expenditure Panel Survey, 2006. Expenditures by medical condition. IN: Table 4: Percent distribution of total expenses by sources of payment for selected conditions: United States, 2006. * Unreliable data. COPD = chronic obstructive pulmonary disease.

Preventive Care—Improving prevention is central to improving America's health. A review of immunizations and colorectal cancer screenings for older adults show disparities for Blacks and Hispanics, individuals with lower educational attainment, and individuals with low socioeconomic status. In 2008, nearly 45 percent of adults aged 65 years or older who had not had a flu shot within the past year were Black and nearly 48 percent were Hispanic compared to almost 28 percent of older White adults. While the their education levels ranged from having less than a high school diploma to college graduate, more than a third (34.9%) had not completed high school. Their income level also was spread across a broad range, yet more than a third earned less than \$15,000 per year (Exhibit 2-32). Refer to Appendix A, Exhibits A-12 through A-19, for information on healthcare coverage and funding resources.

Private insurance includes Tricare (Armed Forces-related coverage).

Other includes public programs such as Department of Veterans Affairs (except Tricare); other federal sources (Indian Health Service, military treatment facilities, and other care provided by the Federal Government); other state and local sources; other public payments; Worker's Compensation; other unclassified sources (e.g., automobile, homeowner's, liability, and other miscellaneous or unknown sources); and other private insurance.

CTrauma-related disorders are clinical classification codes 225-236, 239, 240, 244. These include fractures, spinal cord injury, sprains, crushing injuries, wounds, contusions, burns.

http://www.meps.ahrq.gov/mepsweb/data_stats/tables_compendia_hh_interactive.jsp?_SERVICE=MEPSSocket0&_PROGRAM=MEPSPGM.TC.SAS&File =HCFY2006&Table=HCFY2006%5FCNDXP%5FD&_Debug=

Exhibit 2-31: Healthcare Coverage, United States and Territories, 2008									
Adults aged 18-64 who say they have NO kind of healthcare coverage									
Race/Ethnicity Education Income									
Category	Percent ^a	Category	Category Percent a Category						
All	17.1	All	17.1	All	17.1				
White	12.9	Less than H.S.	40.3	Less than \$15,000	40.2				
Black	21.7	H.S. or G.E.D.	23.2	\$15,000 \$24,999	40.6				
Hispanic	39.5	Some post-H.S.	15.6	\$25,000 \$34,999	26.5				
Other	17.2	College graduate	6.6	\$35,000 \$49,999	15.0				
Multiracial	11.3			More than \$50,000	4.8				

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Health Care Access/Coverage.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=HC&yr=2008&qkey=868&state=US

Exhibit 2-32 shows a similar pattern for adults aged 65 and older who said that they never had a pneumococcal vaccination in 2008. Almost 48 percent of them were Black and almost 51 percent were Hispanic, compared to 30.5% of older White adults. While the education and income levels were spread across a wide range, 38 percent had not completed high school, and over a third earned less than \$15,000 a year.

Exhibit 2-32: Immunization, Older Adults, United States and Territories, 2008									
Adults aged 65+ who have NOT had a flu shot within the past year or have NEVER had a pneumonia vaccination									
Race/Ethnicity Education Income									
0-4	F	Percent ^a	0-4	P	ercent ^a	0-4	Percent ^a		
Category	Flu	Pneumonia	Category	Flu	Pneumonia	Category	Flu	Pneumonia	
AII	29.1	33.1	All	29.1	33.1	AII	29.1	33.1	
White	27.5	30.5	Less than H.S.	34.9	38.0	Less than \$15,000	34.8	33.8	
Black	44.9	47.5	H.S. or G.E.D.	30.1	32.2	\$15,000 \$24,999	30.8	32.4	
Hispanic	33.9	50.8	Some post-H.S.	26.6	29.7	\$25,000 \$34,999	25.7	29.3	
Other	21.4	29.5	College graduate	25.2	32.7	\$35,000 \$49,999	26.2	31.2	
Multiracial	28.1	37.7				More than \$50,000	25.9	34.5	

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS) Prevalence and Trends Data 2008, Immunization.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=IM&yr=2008&qkey=4407&state=US

dMedian values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

^aMedian values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

According to the CDC, colorectal cancer is the second leading killer of cancers that affect men and women. In 2008, almost 87 percent of Hispanics aged 50 or older reported that they had not had a blood stool test within the previous two years. Nearly 83 percent of older adults who reported not having had a blood stool test within the previous two years had less than a high school education, and 82.2 percent of them earned less than \$15,000 a year (Exhibit 2-33).

Approximately 52 percent of Hispanics and 4 percent of Blacks aged 50 or older said that they never had a sigmoidoscopy or colonoscopy compared to 36 percent of older White adults. Forty-eight percent had earned less than a high school degree and nearly 48 percent earned less than 15,000 a year (Exhibit 2-33).

Exhibit 2-33: Colorectal Cancer Screening, United States and Territories, 2008									
Adults aged 50+ who have NOT had a blood stool test within the past two years or have NEVER had a sigmoidoscopy or colonoscopy									
Race/Ethnicity Education Income									
0.1	Perc	ent ^a	0.4	Percent ^a				Percent ^a	
Category	Stool	S/C	Category	Stool	S/C	Category	Stool	S/C	
AII	79.1	38.2	AII	79.1	38.2	AII	79.1	38.2	
White	78.7	36.0	Less than H.S.	82.6	48.0	Less than \$15,000	82.2	47.9	
Black	76.4	42.0	H.S. or G.E.D.	79.5	41.4	\$15,000 \$24,999	78.1	43.9	
Hispanic	86.9	51.8	Some post-H.S.	78.8	38.0	\$25,000 \$34,999	78.5	38.7	
Other	85.0	52.5	College graduate	78.5	31.1	\$35,000 \$49,999	78.2	37.4	
Multiracial	77.8	42.8				More than \$50,000	80.0	34.3	

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Colorectal Screening.

Behavioral Determinants

It is almost universally accepted that diseases arise as the result of a chain of events. Somewhere among the intermediate links in the causal chain lie human behaviors (also called "health behaviors") that can directly influence the risk of disease. Health behaviors often associate with or affect different populations in different ways, significantly contributing to the emergence of health disparities. Since health behaviors are among the few modifiable risk factors that exist for some diseases, a thorough understanding of their epidemiological, ethnographic and socioeconomic underpinnings is critically important for closing persistent gaps in health and health care status. Health behaviors seldom occur in isolation; instead, they combine into clusters that influence a person's or group's overall risk of disease. For example, the sedentary lifestyle

Median values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). Stool=blood stool test; S/C=sigmoidoscopy or colonoscopy.

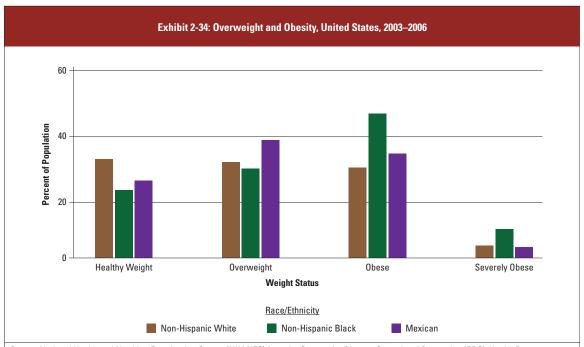
H.S.=high school; G.E.D.=General Equivalency Diploma

http://apps.nccd.cdc.gov/brfss/display.asp?cat=CC&yr=2008&qkey=4424&state=US

of a growing number of people comprises a more or less consistent set of mutually interacting behaviors, such as engaging in little exercise, eating foods of poor nutritional value, consuming high caloric drinks, and perhaps also smoking cigarettes or experimenting with other addictive substances.

While these aggregated factors do not inexorably cause disease, they will elevate the risk of becoming obese and/or of suffering high blood pressure, cardiovascular disease, and addiction to the affected individuals. Health behaviors, though difficult to change, offer high pay-off points of intervention for prevention strategies that offer long-term positive changes in health outcomes. The following discussion highlights some of the most common behavioral determinants of health.

Overweight and Obesity—The National Heart, Lung, and Blood Institute indicates that the terms overweight and obesity "refer to a person's overall body weight and where the extra weight comes from. Overweight is having extra body weight from muscle, bone, fat, and/or water. Obesity is having a high amount of extra body fat." 109 It is estimated that nearly 67 percent of individuals 20 years and older in the U.S. are overweight (2005-2006). Of these, 34 percent are obese. Close to 1 in 5 adolescents (ages 12-19) is overweight. 110 Despite the fact that there are a number of factors that influence weight (e.g., behavior, genetics, environment), being overweight or obese places people at risk for many conditions, such as some of those discussed above. In addition, these conditions (e.g., heart disease, diabetes, high blood pressure,



Source: National Health and Nutrition Examination Survey (NHANES) from the Centers for Disease Control and Prevention (CDC): Health Data Interactive; Risk factors and disease prevention; Table on Overweight/obesity, ages 20+, US/1988-2006 (data for 2003-2006 presented here). Data only available for races/ethnicity shown. Data are age-adjusted for ages 20 and older. Data are for measured body mass index (BMI): healthy weight = BMI 18.5 to < 25.0; overweight =BMI 25.0 to < 30.0; obese = BMI greater than or equal to 30.0; severely obese = BMI greater than or equal to 40.0 www.cdc.gov/nchs/hdi.htm

certain cancers, and strokes) evidence disparities for racial and ethnic minorities and other groups. Exhibit 2-34 shows that non-Hispanic Blacks have the highest rates of obesity and severe obesity, followed by Mexican-Americans. Non-Hispanic Whites have the highest rates of healthy weight.

Overweight and obesity are usually related to an individual's patterns of exercise (Exhibit 2-35) and food intake – two components that are valuable points of intervention for controlling weight.

Exercise—Exhibit 2-35 indicates that race, ethnicity, low education levels, and low income are related to low participation in physical exercise. Approximately 32 percent of Hispanics and 32 percent of Blacks selfreported that they did not participate in physical activities during the past month compared to about 23 percent of Whites. Survey data also shows a relationship between exercise and education. Nearly 42 percent of individuals who earned less than a high school degree self-reported that they did not participate in any physical activity during the past month compared to approximately 15 percent of college graduates. There was also a directly proportional relationship between physical activity and income. Individuals earning less than \$15,000 a year (41.7%) reported less participation in physical activity during the past month than those earning more than \$50,000 (16.8%).

Exhibit 2-35: Exercise, United States and Territories, 2008 Persons who did NOT participate in any physical activities during the past month								
Race/Ethnicity Education Income								
Category	Percent ^a	Category	Percent ^a	Category	Percent ^a			
All	24.8	AII	24.8	All	24.8			
White	22.6	Less than H.S.	41.9	Less than \$15,000	41.7			
Black	31.6	H.S. or G.E.D.	32.2	\$15,000 \$24,999	36.1			
Hispanic	32.3	Some post-H.S.	23.8	\$25,000 \$34,999	31.4			
Other	25.8	College graduate	14.8	\$35,000 \$49,999	25.6			
Multiracial	18.8			More than \$50,000	16.8			

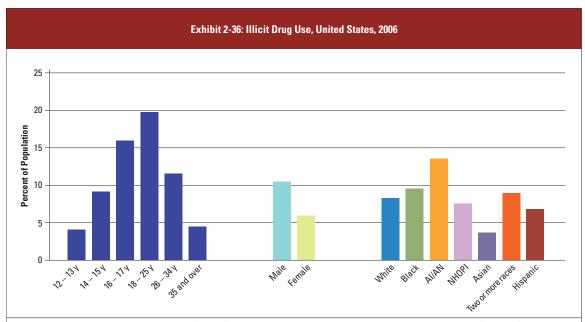
Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Exercise.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=EX&yr=2007&qkey=4347&state=US

^aMedian values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

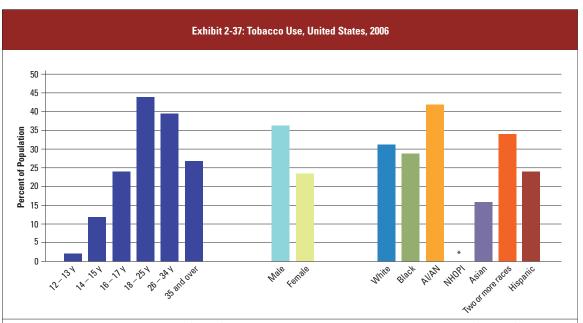
Illicit Drugs, Tobacco, Alcohol—Use of illicit drugs (Exhibit 2-36), use of tobacco (Exhibit 2-37), and abuse of alcohol (Exhibit 2-38) are linked to adverse health outcomes, including disease, violence, and accidental death. As discussed below, these substances are more likely used by younger individuals, males, and some racial and ethnic groups.

 An estimated 20.1 million Americans aged 12 years and older (8% for this age group) used an illicit drug in the past month, with marijuana as the most commonly used illicit drug. There was a decline in past-month illicit drug use among 12 to 17 year olds (from 11.6 percent in 2002 to 9.3 percent in 2008). 111 Illicit drug use in the U. S. is most prevalent among males, individuals 18-25 years of age, and Native Americans (Exhibit 2-36). As shown, drug use increases steadily from age 12-13, peaks at 18-25 years of age, followed by declines in usage. Illicit drug use by adolescents declined by 24 percent between 2001 and 2007; this trend is largely driven by declines in marijuana smoking during that period. 112 The drop in marijuana use was significant among 10th-graders whose past-year use dropped from a peak of 34.8 percent in 1997 to 24.6 percent in 2007. Abuse of prescription drugs (e.g., pain medications like OxyContin and Vicodin) by young adults (aged 18-25) increased between 2002 (5.4%) and 2006 (6.4%). 113



Source: National Survey on Drug Use and Health (NSDUH) data, Substance Abuse and Mental Health Services Administration (SAMSHA), Office of Applied Studies. IN: Health, United States 2008; Table 66: Use of selected substances in the past month among persons 12 years of age and over, by age, sex, race, and Hispanic origin: United States, 2002, 2005, and 2006 (2006 data shown here). Data are based on household interviews of a sample of the civilian non-institutionalized population 12 years of age and over. Al/AN=American Indian/Alaska Native; NHOPI = Native Hawaiian and Pacific Islander. Use of any illicit drug in the past month, including marijuana/hashish, cocaine (including crack), heroin, hallucinogens (including LSD and PCP), inhalants, or any prescription-type psychotherapeutic drug used non-medically. http://www.cdc.gov/nchs/hus.htm

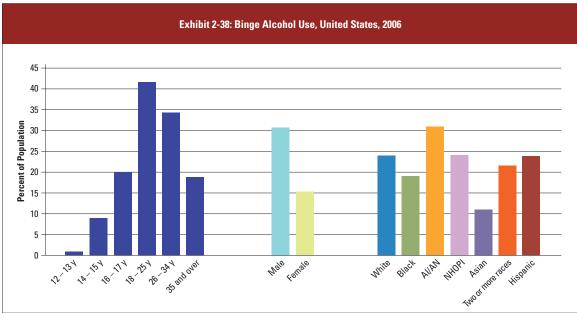
- ◆ A significant body of evidence shows that smoking is the single greatest cause of avoidable morbidity and mortality in the U.S. 114 Yet, approximately 43.4 million U.S. adults smoke cigarettes and more than 126 million non-smokers are regularly exposed to secondhand smoke. 115 The CDC estimates that the effects of cigarette smoking account for an estimated 1 in 5 deaths each year in the U.S.—with adverse effects including risks for a host of health problems such as lung cancer, heart disease, stroke, lower respiratory diseases, infertility, low birth weight and Sudden Infant Death Syndrome. 116
- Smoking's adverse effects are not just limited to the user, but also to others who are in the adjacent environment. Homes and the workplaces are primary locations for second-hand smoke, with almost 60 percent of young children (ages 3-11 years) exposed to this noxious environment. Tobacco use is highest in younger individuals (ages 18-34 years) and in males. 117 There are slightly higher levels of tobacco use in American Indians and Alaska Natives and in multiracial individuals (Exhibit 2-37). Smoking rates for 2007 were at an all-time low. 118



Source: National Survey on Drug Use and Health (NSDUH) data, Substance Abuse and Mental Health Services Administration (SAMSHA), Office of Applied Studies, IN: Health, United States 2008; Table 66: Use of selected substances in the past month among persons 12 years of age and over, by age, sex, race, and Hispanic origin: United States, 2002, 2005, and 2006 (2006 data shown here). Data are based on household interviews of a sample of the civilian non-institutionalized population 12 years of age and over. AI/AN=American Indian/Alaska Native; NHOPI = Native Hawaiian and Pacific Islander. Use of any tobacco product in the past month, including cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco. * = unreliable data

http://www.cdc.gov/nchs/hus.htm

◆ Excessive alcohol use (i.e. excessive drinking or binge alcohol use) increases the risk of accidental death, violence, risky sexual behaviors, alcohol poisoning, psychiatric problems, or diseases such as liver disease. 119 Abuse of alcohol is the third leading lifestyle-related cause of death in the U.S. 120 Binge alcohol use is likewise more common in youthful age groups (ages 18-34 years) and in males. There are slightly higher levels of binge alcohol use in American Indians and Alaska Natives compared to other populations (Exhibit 2-38). Driving while under the influence of alcohol and the resultant risk of traffic fatalities continue to be a concern—12.4 percent of individuals (ages 12 or older) reported driving under the influence at least once the past year, although this represents a decline from a rate of 14.2 percent in 2002. 121



Source: National Survey on Drug Use and Health (NSDUH) data, Substance Abuse and Mental Health Services Administration (SAMSHA), Office of Applied Studies. IN: Health, United States 2008; Table 66: Use of selected substances in the past month among persons 12 years of age and over, by age, sex, race, and Hispanic origin: United States, 2002, 2005, and 2006 (2006 data shown here). Data are based on household interviews of a sample of the civilian non-institutionalized population 12 years of age and over. AI/AN=American Indian/Alaska Native; NHOPI = Native Hawaiian and Pacific Islander. Binge alcohol use is defined as drinking five or more drinks on the same occasion on at least one day in the past 30 days. Occasion is defined as at the same time or within a couple of hours of each other. http://www.cdc.gov/nchs/hus.htm

Environmental Determinants

The physical environment plays a vital and primary role in health outcomes. To a great extent, the environment determines whether or not we are healthy—through access (or not) to clean air and water, safe housing, roads, and communities; and healthy working conditions. 122 WHO estimates that each year, thirteen million deaths worldwide are due to preventable environmental causes. WHO argues that a quarter

of all preventable illnesses can be avoided through proper environmental management. 123 Points of intervention include, for example, indoor and outdoor air pollution; chemical safety in the local environment; ionizing and ultraviolet radiation exposure; and water, sanitation, and hygiene facilities. 124

Healthy People 2020 defines the physical environment as, "that which can be seen, touched, heard, smelled, and tasted. However, the physical environment also contains less tangible elements, such as radiation and ozone. The physical environment can harm individual and community health, especially when individuals and communities are exposed to toxic substances; irritants; infectious agents; and physical hazards in homes, schools, and worksites. The physical environment also can promote good health, for example, by providing clean and safe places for people to work, exercise, and play." 125

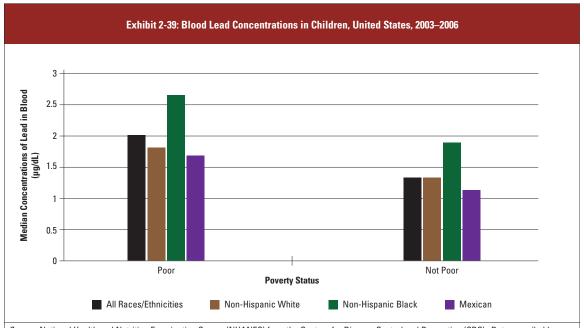
The environmental determinants of health are important contributors to health disparities. Several lines of evidence suggest that minority and low-income populations experience a higher burden for some exposures and diseases related to the physical environment as shown in the exhibits below. In 1992, the U.S. Environmental Protection Agency (EPA) issued a timely and key "environmental equity" report, which concluded that: 126

- Racial minority and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, contaminated fish and agricultural pesticides in the workplace.
- There are clear differences between racial groups in terms of disease and death rates. There are also limited data to explain the environmental contribution to these differences. In fact, there is a general lack of data on environmental health effects by race and income. For diseases that are known to have environmental causes, data are not typically disaggregated by race and socioeconomic group. The notable exception is lead poisoning: A significantly higher percentage of Black children compared to White children have unacceptably high blood lead levels."
- "Great opportunities exist for EPA and other government agencies to improve communication about environmental problems with members of low-income and racial minority groups.

Geographic locations have varying constellations of environmental hazards. For example, some urban environments are characterized by poor air quality, crowded and unsafe housing (e.g. lead paint), limited access to fresh foods, and unsafe or violent neighborhoods. A high percentage of minorities reside in urban centers (Exhibit 2-2). Alternatively, those living in rural environments may be exposed to higher levels of hazardous waste (e.g., farm-related pesticides and petroleum products). 127,128

The following exhibits and information provide a brief summary on blood lead levels, asthma, and the workplace environment as they relate to environmental determinants of health.

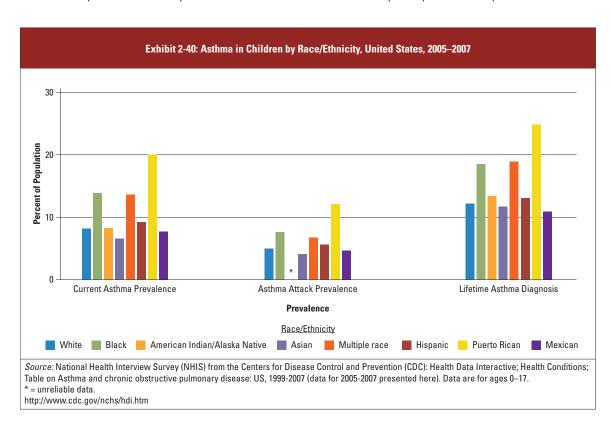
Blood lead—Bio-monitoring data on exposure to environmental toxins highlight disparities in actual body burdens of environmental toxins. Lead is a neurotoxic metal and an environmental toxin that is clearly linked to disparities in exposure burden related to race, ethnicity, and income. Lead poisoning is entirely preventable. 129 Children are especially at risk to lead exposure due to unique behaviors (e.g. hand to mouth behavior). Further, most of the available evidence suggests that children are more biologically susceptible to the adverse effects of lead because of their developing brains and nervous systems. 130 Especially at risk are very young children for whom exposure per pound of weight is high due to their small size and undeveloped blood-brain barriers. 131,132 As shown in Exhibit 2-39, lead exposure in children ages 1-5 is more prevalent among African Americans who tend to reside in urban areas (Exhibit 2-2), where older homes may contain lead-based paint hazards. 133 Blood lead levels are also high for economically poor children of all races and ethnicities shown (Exhibit 2-39), compared to their non-poor counterparts.



Source: National Health and Nutrition Examination Survey (NHANES) from the Centers for Disease Control and Prevention (CDC). Data compiled by Environmental Protection Agency (EPA). IN: Body Burdens; Measure B2: Median concentrations of lead in blood of children ages 1-5, by race/ethnicity and family income. Data are for ages 1-5. Data only available for races/ethnicities shown. Poverty status according to U.S. Census Bureau "poverty income ratio" definitions. Poor (<100% of the poverty threshold); not poor (200% of the poverty threshold or greater). http://www.epa.gov/envirohealth/children/body_burdens/b2-graph.html

Asthma—Asthma, a chronic respiratory disease, is a good model for disease conditions associated with the environment that disproportionately burden some minority groups. Asthma attacks can range in severity from mild to life-threatening. The etiology of asthma is largely unknown; however, susceptibility for development of asthma can include a family history of the disease or environmental triggers, such as tobacco smoke, dust mites, cockroach allergen, pets, mold, or outdoor air pollution (e.g., ozone, particulate matter). 134 In 2005 there were 3,884 deaths in the U.S. (or 1.3 deaths per 100,000 population) in which asthma was the underlying cause of death. 135 The majority of these deaths are preventable given established treatment, including avoidance of factors (such as environmental triggers) that foster asthma attacks. 136

Asthma attack prevalence (an asthma episode or attack in the past 12 months), current asthma prevalence (individuals who had been told they had asthma and were asked whether they still had asthma), and lifetime asthma diagnosis (individuals who reported that they had ever been told by a health professional that they had asthma) all evidence disparities by race, ethnicity, and SES. 137 In 2006 nearly 4 million children experienced an asthma attack during the previous 12 months. 138 In all three categories of indicators (Exhibit 2-40), Puerto Rican, African American, and multiple race children (ages 0-17) bore a heavier burden of asthma than did children from the other race/ethnicities shown. Poverty is also a risk factor for asthma as shown in Exhibit 2-41. In all cases, poor children have a higher prevalence of asthma than do non-poor children. Of particular note is the double burden of poverty and minority status that is

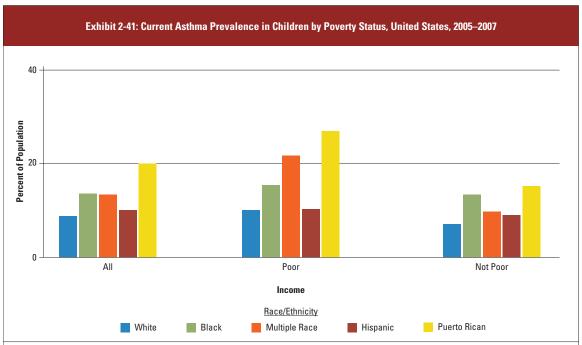


evident for both asthma (Exhibit 2-41) and blood lead level (Exhibit 2-39), such that even non-poor Black and Hispanic children have a higher burden of adverse factors than do their White counterparts.

Asthma decreases in older populations and is higher among adult females compared to males. This contrasts with children in which asthma is higher in males than females. ¹³⁹ However, just as for children, lifetime asthma diagnosis for adults shows disparities by race and SES. African American and multiracial adults, those with less than a high school education, and those with low incomes have a higher lifetime diagnosis of asthma (Exhibit A-9 in Appendix A).

Workplace Environment—Workplace fatalities, injuries and illnesses are a significant component of the environmental determinants of health. Just as for other health indicators, disparities in occupational health and safety exist. As noted in Chapter 1, "the private sector is beginning to realize that there are real bottom line costs associated with health disparities." Workplace costs due to work-related injuries, illness and death are a significant economic incentive for decreasing health disparities.

Exhibit 2-42 indicates the percentages of nonfatal occupational injuries and illnesses that resulted in lost work days in 2007. While many injuries are not reported, there is an indication that Hispanics are proportionally overrepresented (19%) for injuries in goods-producing industries compared to their numbers

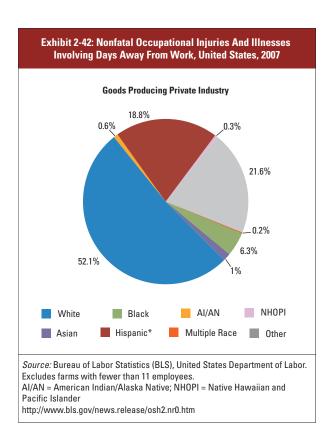


Source: National Health Interview Survey (NHIS) from the Centers for Disease Control and Prevention (CDC): Health Data Interactive; Health Conditions; Table on Asthma and chronic obstructive pulmonary disease: US, 1999-2007 (data for 2005-2007 presented here). Data are for ages 0-17. Poverty status according to U.S. Census Bureau "poverty income ratio" definitions. Poor (<100% of the poverty threshold); not poor (200% of the poverty threshold or greater). Those displayed here highlight the largest disparities. http://www.cdc.gov/nchs/hdi.htm

in the population at large (15%, as shown in Exhibit 2-1). For example, between 1992 and 2001 Hispanic construction workers were consistently killed on the job more frequently than non-Hispanic workers (e.g., 1.6-fold higher in 2001). 140

Agricultural workers (including many minorities) are at much greater risk for morbidity and mortality from pesticide poisoning than are non-agricultural workers; female workers are at higher risk than are male workers. 141 Further, agricultural workers may expose their children by unknowingly bringing pesticides home on their clothing.

Women are at increased risk for musculoskeletal disorders and acute injuries when using poorly sized personal protection or other equipment designed for men, or when lifting heavy loads. Women generally have more work-related problems than do men related to respiratory and infectious diseases, anxiety and stress disorders, and sexual harassment. 142



Occupation is a key component of SES, and those working at lower SES jobs are at higher risk for workplace exposures and injuries. 143,144 For example, a MacArthur Research Network study noted that lower SES workers are more likely to be exposed to noxious chemicals and physical hazards such as noise, heat, heavy lifting, long work hours, unstable shift assignments and risk of injury. 145 The study concludes that, "although labor policy may seem distant from health policy, the fact is that each affects the other...The investment we make in improving work conditions—including policies that reduce stress in the work world or that enable workers to cope with the pressures that cannot easily be changed —will make a difference in reducing disparities between the most and least advantaged workers."146

Thus, policymakers, employers, labor unions, and other workplace stakeholders are necessary partners in developing comprehensive health intervention programs and in identifying the workplace as an important place to implement interventions that promote health equity. The National Institute for Occupational and Safety and Health (NIOSH) WorkLife Initiative 147 is an example of an approach combining workplace protections with health promotion activities. Another example comes from the recommendations of the American Heart Association, ¹⁴⁸ which provide a comprehensive approach to workplace wellness, including reducing workplace stress and controlling hazardous exposures as key components of a successful program.

Biological and Genetic Determinants

Health is determined by a complex interaction of biological, genetic, social, environmental and developmental factors. Advances in science and scientific methods, particularly in our understanding of genetics and epigenetics, have greatly enhanced our ability to document and explore these interactions. For example, African-Americans evidence disparities in heart disease; and various gene loci have been linked to early-onset hypertension or to risk of heart failure in African Americans. 149,150 Research that examines the potential biological or genetic determinants of health has traditionally involved the medical and bench research sciences rather than the social sciences; however, transdisciplinary research approaches and teams are becoming the norm. A number of studies, such as the federally-sponsored Jackson Heart Study, began in 2000 as an epidemiological examination of cardiovascular disease in African-Americans. 151 Congruous to the Framingham Heart Study of predominantly White individuals, the comprehensive Jackson Heart Study examines and identifies environmental, genetic, and other risk factors that influence the development of cardiovascular diseases in African American men and women.

Members of racial and ethnic minority groups have been historically underrepresented in clinical research studies and clinical trials 152,153—the very means by which the biological and genetic determinants of health, and the methods to safeguard health, are identified. Multiple efforts are underway to develop and promote methods that will attract and retain racial and ethnic minorities into medical research studies. For example, the Antihypertensive and Lipid Lowering Treatment to Prevent Heart Attack Trial (ALLHAT)¹⁵⁴ and the African-American Heart Failure Trial (A-HeFT)¹⁵⁵ have attempted to incorporate meaningful representation of African Americans and other racial and ethnic minorities in studies that advance overall knowledge of cardiovascular health.

Translating research-based evidence into preventive actions and strategies are also a key to a healthier populace and the reduction of health disparities. Aggressive, wide, and prominent promotion of health promotion and prevention strategies will likely foster the well-being and quality of life for all Americans, along with the potentially huge financial benefits for the nation. 156

HEALTHCARE WORKFORCE

Because there is currently a shortage of health professionals in the U.S., it is probable that such shortages will continue into the foreseeable future—as has been widely discussed and predicted. A report commissioned by the Health Resources and Services Administration (HRSA) found that there are a host of complex factors that contribute to the characteristics and size of the present and future workforce. These factors include demographics, the health education system, the healthcare environment, and a range of other policy and economic issues. 157 The report specifically focused on the implications of changing U.S. demographics on the healthcare workforce. Key pressures on workforce numbers are an aging population, geographic location of patients relative to providers, and the increasing racial and ethnic diversity of the U.S. population. The report found that, all things being constant, the aging of the American population would increase the demand for physicians and nurses. Not only is the general population aging, so too are the health professionals who care for them. A recent Institute of Medicine report, Retooling for an Aging America: Building the Health Care Workforce, pointed to the complex dynamic of growing numbers of older Americans coincident with potentially fewer health professionals to care for them. The result portends an impending crisis in health care due to an inadequate supply of health professionals. 158

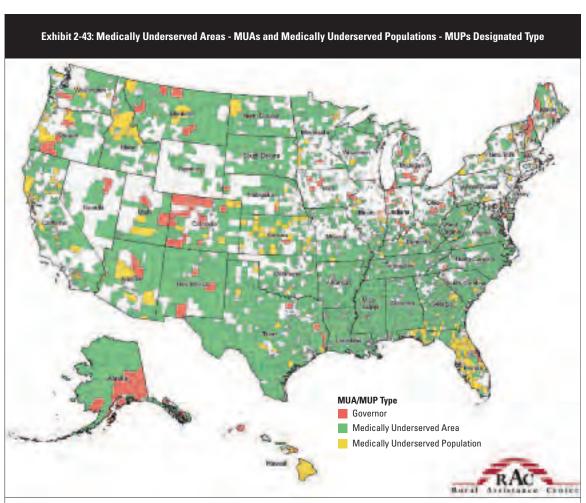
Developing the healthcare workforce requires more than simply assessing the factors that may influence future demand. For many communities, the threat of having insufficient health professionals is an immediate, present-day reality that poses a challenge that must be addressed without delay. Certain geographic, demographic, or institutional areas have been designated by HRSA as Health Professional Shortage Areas (HPSAs)¹⁵⁹ for primary medical care, dental care, or mental health care. As of December 2009, HRSA reported that there were almost 14,000 HPSAs distributed throughout the U.S. and across all health regions:

- ◆ 6,204 Primary Care HPSAs with 65 million people living in them. It would take 16,643 practitioners to meet their need for primary care providers (a population to practitioner ration of 2,000:1).
- 4,230 Dental HPSAs with 49 million people living in them. It would take 9,642 practitioners to meet their need for dental providers (a population to practitioner ration of 3,000:1).
- 3,291 Mental Health HPSAs with 80 million people living in them. It would take 5,338 practitioners to meet their need for mental health providers (a population to practitioner ratio of 10,000:1).

The maps shown in Exhibits 2-43 through 2-46 depict the Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs); HPSAs for Primary Health Designated Populations; HPSAs for Mental Health Designated Populations; and HPSAs for Dental Health Designated Populations in the U.S.

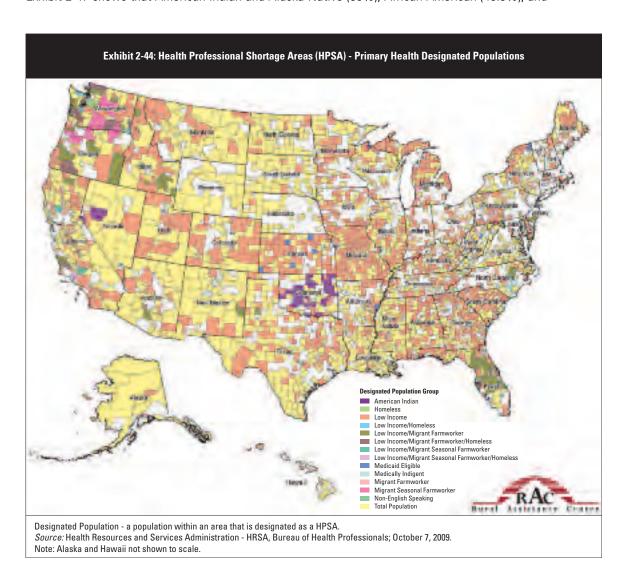
The National Health Service Corps (NHSC) assists HPSAs in every state, territory, and possession of the U.S. to meet their primary care, oral, and mental health services needs. Over its 39-year history, the NHSC has offered recruitment incentives, in the form of scholarship and loan repayment support to nearly 30,000 health professionals committed to service to the underserved. NHSC clinicians have expanded access to high quality health services and improved the health of underserved people.

The NHSC has, since its inception in 1972, worked closely with the federally-funded Health Centers to help meet their clinician needs. Currently, approximately 50 percent of the NHSC clinicians serve in Health Centers around the Nation. The NHSC also places clinicians in other community-based systems of care that serve underserved populations targeting HPSAs of greatest need.



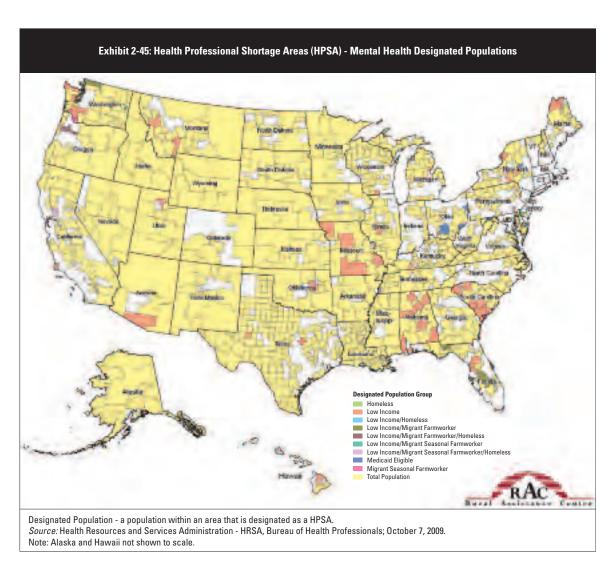
Governor - MUP designation at the request of a State Governor based to documentunusual local conditions and barriers to accessing personal health services. MUA - area designated for the resident civilian population. MUP - population designated for a specific population. Source: Health Resources and Services Administration - HRSA, Bureau of Health Professionals; October 7, 2009. Note: Alaska and Hawaii not shown to scale.

In 2004, The Sullivan Commission issued a report entitled Missing Persons: Minorities in the Health Professions. This report and others highlight the influence of insufficient numbers of minority health professionals on persistent racial and ethnic health disparities. 161 A diverse healthcare and health research workforce can improve access to and quality of health care for minorities, especially as our country shifts to become a "minority-majority" population in the next few decades. Minorities generally receive care from health providers of their own race and ethnicity—sometimes due to personal preference or issues of cultural and linguistic sensitivity. 162,163 However, one of the most compelling arguments for recruiting minorities into the health professions is the critical shortage of healthcare providers, especially primary care physicians, in underserved areas and among underserved populations (e.g., HPSAs designated by HRSA). Shortage of physicians and medical personnel in underserved areas is a widespread problem. 164,165 Exhibit 2-47 shows that American Indian and Alaska Native (50%), African American (45.3%), and



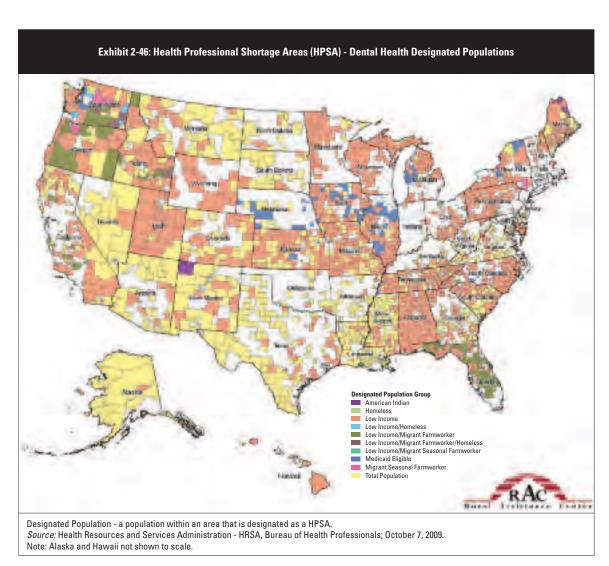
Hispanic/Latino (31.6%) medical school graduates plan to practice in an underserved area; and these numbers are higher than for Whites or Asians. Given the shortages in the pool of healthcare workers and the numbers of racial and ethnic minority health professionals that provide care in underserved areas, it makes economic and social sense to bring as many students into the health education pipeline as quickly as possible.

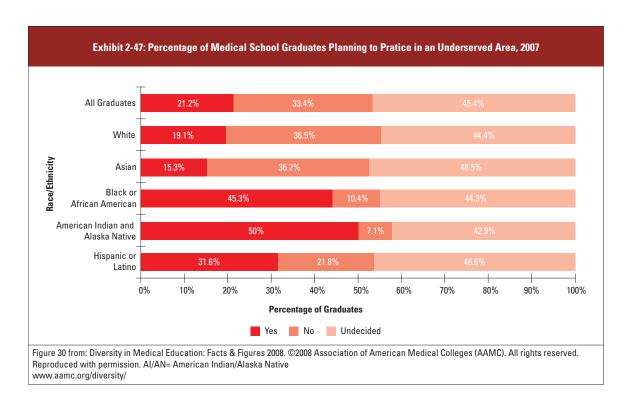
An important consideration in discussions about building the health professions pipeline is the current demographics of students in various health professions. As the majority race category, White students predominate in all of the health professions. However, they are represented in health schools at somewhat lower proportion (60-70 percent), compared to their representation in the population as a whole (about 80 percent of the total U.S. population) as shown in Exhibit 2-1. In contrast, Asians constitute only about 5



percent of the total U.S. population, yet comprise 15-20 percent of students in dental, medical, optometry and pharmacy schools (Exhibit 2-48). The reverse is true for Hispanics, who represent about 15 percent of the U.S. population but comprise only 4 to 7 percent of the student population of health schools. Except for podiatry and nursing, Blacks (about 13 percent of the U.S. population) are underrepresented as students of dentistry, medicine, optometry, and pharmacy.

Beyond the basic issues of language competency for effective communication, there are important issues of cultural competency that are most easily addressed by health professionals who share the same cultural and language background. It also has been well established that minorities are less likely to express attitudes of trust toward medical/scientific institutions than are Whites. 166,167,168,169 It is generally held that this phenomenon relates to minority awareness of past incidences in which medical institutions failed in





their treatment of minorities (e.g., the Tuskegee syphilis study of African American men). Trusting, respectful, and communicative relationships within a healthcare setting enhance patient understanding. patient compliance, and shared decision-making—all indicators of better health. To the extent that minority healthcare providers offer a common cultural or linguistic basis for communicating with their minority patients, and/or are perceived as more approachable and trustworthy—health care in such a context has greater potential for beneficial outcomes, other factors being equal.

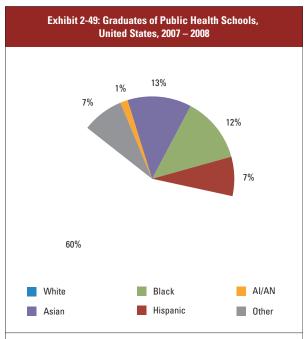
Research studies benefit from investigators who are from diverse populations (e.g., gender, race, ethnicity) and who possess an understanding of the needs and values of local communities. In part, research agendas are influenced by individuals who choose research as a profession. These individuals pursue research in their areas of interest and thus they help shape the breadth and scope of the conditions that may be studied and the recruitment of research participants. 170 Institutions that approach minority individuals or communities with only their own research agendas or needs in mind are likely to be unsuccessful in recruitment. However, programs and protocols that target particular community needs and that provide value to the community will have a higher likelihood of success. Thus, the presence of minority scientists on clinical research teams not only contributes to the study, it may also foster credibility for future research studies within minority communities. Minority researchers may have better cultural and linguistic competency and better understanding of minority health needs than non-minority researchers who have only classroom training in competency issues.

Exhibit 2-48: Minorities Enrolled in U.S. Health Schools, 2005–2006									
	Percent Distribution of Students in Each Profession ^a								
Race/Ethnicity	Dentistry	Medicine (Allopathic)	Medicine (Osteopathic)	Nursing, Baccalaureate	Optometry	Pharmacy	Podiatry		
NH White	62.7	63.1	71.9	76.1 ^b	63.2	59.9	61.5		
NH Black	5.7	7.3	3.9 ^b	12.1 ^b	3.5	8.0	14.0		
AI/AN	0.5	0.9	0.8	0.8	0.5	0.5	0.6		
API	22.0	21.0	15.9	5.8	23.5	20.8	10.8		
Hispanic	5.7	7.4	3.9	5.2	5.1	3.8	6.9		

Source: Health United States, 2008. IN: Table 114, Total Enrollment of minorities in schools for selected health occupations, by race and Hispanic origin: United States, selected academic years 1980-1981 through 2005-2006. (2005-2006 reported here.) NH=Non-Hispanic; Al/AN=American Indian/Alaska Native; API=Asian/Pacific Islander.

http://www.cdc.gov/nchs/data/hus/hus08.pdf

For reasons similar to those described above, the public health, policy, and administrative workforces, as well as medical school faculty and other health professionals, should also be diverse. For example, individuals who graduate from public health schools (Exhibit 2-49) have similar characteristics to those who are enrolled in medical, dental, optometry, and pharmacy schools. Hispanic and White students are underrepresented (7% and 60% respectively) in public health schools compared to their representation in the general population (15% and 80% respectively, as shown in Exhibit 2-1). Conversely, Asian Americans (13%) are overrepresented in public health schools compared to their representation in the total U.S. population (5%). The proportion of medical school faculty by race and ethnicity (Exhibit 2-50) also follows a similar pattern. White (69%),



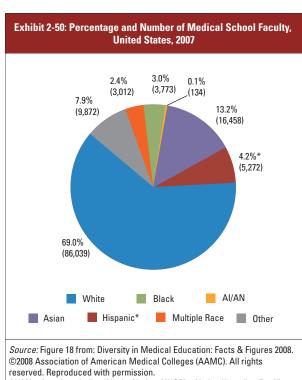
Source: Association of Schools of Public Health (ASPH), Annual Data Report, 2008: Table 4.3: U.S. graduates by school and race/ethnicity. Information from the 40 accredited U.S. schools of public health, including Puerto Rico. Data for academic year 2007-2008.

AI/AN = American Indian/Alaska Native

http://www.asph.org/UserFiles/2008%20Data%20Report.pdf

a Percentages do not add to 100 percent because categories for other remaining students are not provided in source data set.

Data set designates White or Black race, without ethnicity designation.



Black (3%), Hispanic (4.2%), and American Indian and Alaska Native faculty (.1%) are underrepresented compared to Asian Americans (13.2%) who are overrepresented.

Building a health professions workforce that mirrors the broad diversity of America opens up untapped sources of skill and potential to meet current and future healthcare needs. It contributes to the promise of health equity for all populations in this country.

AI/AN = American Indian/Alaska Native; NH0PI = Native Hawaiian/Pacific Islander; multiple race = more than one race and ethnicity

www.aamc.org/diversity/

^{*} Includes Mexican American, Puerto Rican, Cuban, other Hispanic/Latino, multiple Hispanic

Notes for Chapter 2

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 - 2. Ibid., Table 28; Updates accessed 11/12/2009 at www.cdc.gov/nchs/hus.htm.
 - 3. Agency for Healthcare Research and Quality, National Healthcare Disparities Report, 2008 (Rockville, MD: Agency for Healthcare Research and Quality, 2007), p.9, 51, 65, Table 8.3-2.4. Also available online at http://www.ahrg.gov/gual/measurix.htm
 - 4. Health, United States, 2008, Table 18.
 - 5. Ibid., Table 28. Updates accessed 11/12/2009 at www.cdc.gov/nchs/hus.htm.
 - 6. National Healthcare Disparities Report, 2008, p.9, 230.
 - 6B. Office of Minority Health, Hepatitis Data/Statistics. Available online at http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=3&lvlid=540
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 - 10. National Healthcare Disparities Report, 2008, p.115.
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- ²⁴ Centers for Disease Control and Prevention, "Division for Heart Disease and Stroke Prevention: Stroke Fact Sheet," Fact Sheets and At-A Glance Reports. Available at: http://www.cdc.gov/DHDSP/library/fs_stroke.htm
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CHAPTER THREE - STRATEGIES, BENCHMARKS, ACTIONS, AND MEASURES

Strategies, Benchmarks, Actions, and Measures

This chapter describes the twenty national strategies to end health disparities, organized according to the five NPA objectives that are summarized in Chapter 1. For each strategy, additional information provided includes: (1) actions that significantly support the strategy; (2) measures that would show progress for one or more actions; and (3) potential national data sources that currently exist or could be developed for one or more of these measures. The actions, measures, and potential data sources do not necessarily correlate to each other but are intended to respond to the strategy to which they are connected. It is possible that more than one measure could be used to show progress for one action. Likewise, more than one data source may have to be used for a particular measure. National, regional, tribal, state, and local partnerships are strongly encouraged to use the actions and measures included in this chapter to help ensure progress towards a focused direction; at the same time, the partnerships may have to develop other actions and measures that are appropriate for their specific situations.

Benchmarks to measure overall effectiveness of the strategies are provided for selected strategies that are thought to be essential to the success of the NPA in ending health disparities. The criteria for establishing benchmarks for each selected strategy included the feasibility to collect and monitor that data over time to determine the strategy's success.

"Major advances come from collective action."

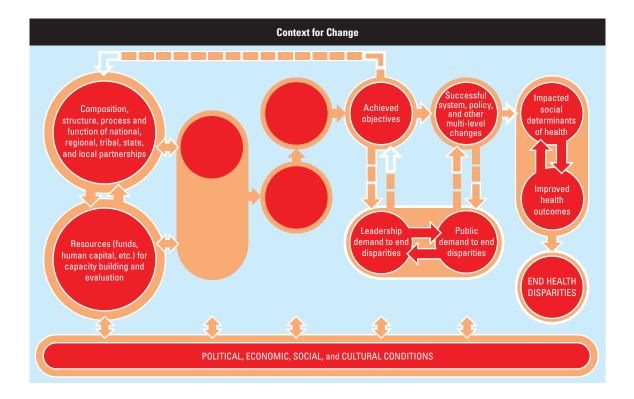
- Professor Sir Michael Marmot, Chair, Commission on the Social Determinants of Health

The intent of this information is to provide a "menu" of strategies with their related actions, measures, and potential national data sources that can be used to prioritize policy and program changes at the national, regional, state, tribal, and community levels. The strategies are applicable at each of these different levels and as such are designed to provide a starting point for organizations committed to change.

CONTEXT FOR CHANGE

At its essence, the NPA promotes systematic and systemic change. This complex process will take time, include many people, and require that steps be taken incrementally, while maintaining focus on the ultimate goal to end health disparities. Therefore, it is important to provide a context for the steps that are needed to create change, implement the NPA, and demonstrate where progress is being made. A theory of the change is illustrated in the logic model shown on the next page for setting this context.

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As mentioned in Chapter 1, the NPA was established in response to the voices of leaders who attended the National Leadership Summit for Eliminating Racial and Ethnic Disparities in Health sponsored by OMH in 2006. These leaders called for actions that were necessary to effectively and efficiently address health disparities in this country. Their call to action constituted the next step towards increasing this nation's leadership and public demand to end disparities. Their vision also recognized the potential use of partnerships to bring together individuals and organizations within and beyond the health sector to address crosscutting, multilevel issues through a more systems-oriented approach. The logic model reflects the anticipated change process that would begin at this juncture of the NPA's history. This model is a general roadmap to ensure that individuals, organizations, and partners stay focused on this vision, while engaging in incremental steps that lead to the end of health disparities.

With this background in mind, the logic model begins with the composition, structure, process, and function of the national, regional, state, tribal, and local partnerships that play an important role in setting the initial context for change. The partnerships also require resources to build their capacity to function effectively and efficiently and to evaluate their efforts. These resources could include funds, knowledge, skills, and other forms of support that lie within or outside the partnerships. As a result, the capacity of partners would increase, and they would become more effective in leveraging the resources and relations required to prioritize and implement priority actions. An interactive effect between the partnerships' initial and increased capacities suggests a continuous process of improvement.

CHAPTER THREE - STRATEGIES, BENCHMARKS, ACTIONS, AND MEASURES

Completion of the priority actions, which hence implement the strategies, would then lead to the partnerships' partial or total achievement of one or more of the five objectives identified in the NPA. The partial or total achievement of the objectives would impact two key levers of change: leadership and public demand to end disparities. The combined impact would be successful system, policy, and other multi-level changes. These changes in turn would affect the conditions in which people are born, grow, live, work, and age, including the health system (e.g., social determinants of health), leading to an improvement in the health outcomes of people who experience disparities.

The logic model also suggests a feedback loop to the partnerships and an iterative cycle of adjustments to the partnerships' structure, process, composition, and functions in order to continuously increase their capacity, resources, and relations to achieve the NPA's objectives. The political, economic, social, and cultural context within which the partnerships would be operating and, therefore, likely to affect the change process, is acknowledged.

The implementation structure for the NPA described in the following chapter demonstrates that a partnership composed of stakeholders from a wide range of sectors (e.g., education, public health, environmental health, public safety, housing, transportation, business, etc.) has to be established at the national, regional, state, tribal, and local levels in order to implement the NPA. Therefore, a similar theory of change can be applied to each level should any agency or organization implement one or more strategies and related actions.

Notes for Chapter 3

¹Coffman, J., "Evaluation Based on Theories of the Policy Process," The Evaluation Exchange (2007): vol. XIII.

OBJECTIVE 1: AWARENESS

Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial and ethnic minority populations

STRATEGY 1: HEALTH AGENDA

Ensure that ending health disparities is a priority on local, state, regional, tribal and federal health and healthcare agendas

BENCHMARK:

Increases in the percentage of adults who believe that ending health disparities is a national priority

ACTIONS MEASURES POTENTIAL DATA SOURCES 1. Number and distribution of state, 1. State, county/city, and tribal 1. Establish, expand and/or strengthen state^b, county/city, tribal, county/city, tribal, or local offices of governments organizational county/city, and local (neighborhood-level) offices of minority minority health or liaisons charts, mission statements and health or establish a minority health liaison in local health and established and their degree of other organizational information environment departments (where appropriate) to ensure ownership, collaboration, and for local health departments, ownership, collaborative partnerships, and decision-making decision-making power and job descriptions for minority health liaisons 2. Types of activities (e.g., scope, 2. Create opportunities to engage stakeholders from all sectors in scale) conducted by stakeholder 2. Neighborhood, city/county. discussions and actions to ensure community responsiveness groups to address health disparities state, tribal, and federal and accountability toward ending existing health disparities and government strategic plans preventing future health disparities 3. Number of bills filed and enacted (e.g., department of health and that drive activities to eliminate human services' strategic 3. Create mechanisms for individuals (e.g., residents, advocates) health disparities and promote plans, community strategic who have been affected by, or concerned with, health disparities health equity, and number of coplans) to share their stories with the public and decision makers at local, signers and authors per bill state, tribal, and national levels 3. State public health budgets Review for line items related to 4. Number and types of policy actions 4. Develop or support efforts to educate legislators and elected driven by data about determinants health disparities activities officials about health disparities and the determinants of health and health disparities (e.g., routine communications on health disparities and the issues 4. Local Health Department that impact health, sharing of data to show impact of day-to-day 5. Publication and dissemination of Infrastructure Study issues that affect their constituents) annual reports to governors, state - Data on local health cabinet members, and tribal leaders department expenditures 5. Develop an annual report for governors, state cabinet members, on the specific health outcomes of and tribal leaders on the specific health and health equity efforts their racial and ethnic minority or 5 Census of Governments and outcomes affecting their constituents tribal constituents (and on - Data for government modifiable risk factors), and expenditures on health 6. Identify and develop relationships with bi-partisan, broad-based reference to these reports in their think tanks and other data-generating organizations to advance plans, speeches, and other 6. National Conference of State and disseminate model policies regarding health disparities and communication Legislatures' Health Resources health equity and Research 6. Number of federal, state, tribal, and - Collection of articles, briefs. 7. Identify and negotiate presentations at conferences where topics local government plans with bills/summaries, databases, related to health disparities and healthy equity should be on the legislative support that address letters and testimonies related to health disparities health disparities and health equity 8. Include health disparities and health equity as a required action 7. Percent increase in public or item for all relevant government-funded programs, plans, and private funding allocated to support activities to eliminate health disparities, including cross-agency 9. Utilize a national minority health information exchange or "portal collaborations system" as the central repository of all minority health data and related information, including government- and private-funded 8. Utilization trends for the national research, publications, pod casts, web-based resources, minority health information transcripts, conferences, and electronic trainings exchange 10. Increase health, political, housing, and educational leaders' 9. Number and scope of model awareness of the link among health, economic development, legislation and policies social development and academic achievement 10. Adoption of model legislation and 11. Identify, develop, and disseminate model legislation and policies on ending health disparities

The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

^b The use of "state" in this chapter includes Territories and the District of Columbia.

OBJECTIVE 1: AWARENESS

Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial and ethnic minority populations

STRATEGY 2: PARTNERSHIPS

Develop and support partnerships among public and private entities to provide a comprehensive infrastructure for awareness activities, drive action, and ensure accountability in efforts to end health disparities and achieve health equity across the lifespan

BENCHMARK:

Increase in active state and regional partnerships with representation from key public and private sectors (e.g., government, business, health and human services, faith, youth, and ethnic groups)

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ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
1. Identify and assess existing formal partnerships on the state, county/city, tribal, and local levels that have potential for impacting health disparities to determine gaps, opportunities for new partnerships, and the prospects for coordinating or integrating the work of existing partnerships 2. Identify and engage community leaders, members of existing local coalitions, and non-traditional partners in Neighborhood Solution Groups/Community Health Equity Planning Units focused on ending health disparities; provide infrastructure support, coordinate activities, and minimize unnecessary duplication of efforts across Neighborhood Solution Groups, coalitions, alliances, and other 3. Connect Neighborhood Solution Groups/Community Health Equity Planning Units, coalitions, and alliances representing different racial and ethnic populations, health equity concerns, and geographic communities within states with the NPA to adopt joint priority actions for ending racial and ethnic health disparities 4. Establish or strengthen state, county/city, tribal, and local partnerships across the public and private sectors where gaps exist or that would benefit from coordination between hospitals, community health centers, academic health institutions, private physician practices, civil rights advocacy groups, and other community organizations 5. Identify or create regional coordination bodies to implement regional Blueprints for Action; support evaluation of regional health disparities activities related to the Blueprints for Action; and develop annual reports 6. Encourage federal, state, tribal, and local agencies to develop multi-agency, inter-agency, and public/private collaboratives to promote health equity and to serve as models for states, tribes, and communications among state, county/city, tribal, and local partners to share data, best practices, and achievements 8. Ensure that regional representatives of the Department of Health and Human Services and other federal agencies (such as the EPA and HUD) charged with p	 Goal attainment of state, county/city, tribal and local partnerships addressing health disparity and health equity issues Number and distribution of new institutions, agencies, private/public partnerships, and organizations, including Neighborhood Solution Groups/Community Health Equity Planning Units, that participated in annual activities to eliminate health disparities Goal attainment of Neighborhood Solution Groups/Community Health Equity Planning Units and private/public partnerships intended to eliminate health disparities Distribution and type of health disparity activities carried out by partners annually Percent increase in number and type of partner activities that contributed to policy changes or action by public or private sector organizations Number of Blueprint actions implemented by the Regional Coordination Body Goal attainment for eliminating health disparities by the Regional Coordination Body Content of updates and formal communications issued by the regional coordination body Number of Regional Coordination Body recommendations that contributed to policy changes or action by local, state, tribal, or federal agencies and/or private sector organizations Number of national health disparities planning efforts attended by regional representatives 	1. Survey of local and state health departments, academic institutions, businesses, and community groups on partnerships to address health disparities 2. National Business Group on Health 3. National Center on Minority Health and Health Disparities 4. APHA Health Disparities Community Solutions Database - Review public-private partnership activities 5. AHRQ Health Care Innovations Exchange Health Disparities Database - Searchable database with information on public-private partnerships 6. Regional Coordination Bodies

^a The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

OBJECTIVE 1: AWARENESS

Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial and ethnic minority populations

STRATEGY 3: MEDIA

Leverage local, regional, and national media outlets using traditional and new media approaches (i.e., social marketing, media advocacy) as well as information technology to reach a multi-tier audience—including racial and ethnic minority communities, rural populations, youth, persons with disabilities, older persons, and geographically isolated individuals—to compel action and accountability

youth, persons with disabilities, older persons, and		
ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
 Encourage public and private partners to develop and support a public relations/social marketing infrastructure for health disparities and health equity that serves as a platform for national, regional, state, tribal, and local information campaigns and "mainstream" the message Work with health disparity advocates and organizations in pitching their stories, including stories about solutions/successes, to community-based media outlets and new media Create a Health Disparities/Health Equity Speakers Bureau of individuals from the state, city/county, tribal, regional, and national levels, including civil rights advocates, who can be tapped for a story or interview Diffuse information about and encourage use of the National Minority Health Information Exchange to facilitate access to comprehensive, real-time data and information for use from multiple stakeholders (e.g., federal agencies charged with health protection) by the media, elected officials, health care providers, researchers, civil rights advocacy groups, organizations, and consumers Create relevant health disparity messages for use by local leaders, communities, and partners and train them on how to effectively deliver the messages to respective target communities Develop editorial and newsworthy stories that link health inequities and disparities to social and economic wellbeing of all Maintain media spotlight on health disparities by providing data and information to health reporters and inviting them to meetings or hearings that will help them craft their stories Identify and deliberately involve minority, disability, tribal, and other community-based media 	1. Distribution of coordinated public relations campaigns for eliminating health disparities 2. Content of health disparity-related news events and stories published 3. Number and types of actions spurred by public relations campaigns 4. Number of unique visitors to targeted health disparities websites (e.g., Office of Minority Health, state or local offices of minority health, etc.) 5. Number of downloads or hits of health targeted disparities stories and videos from the National Minority Health Information Exchange 6. Diversity of media outlets disseminating content on health disparity-related messages within a certain period of time 7. Number of first-time town hall or informational meetings/events that address health disparities 8. Placement of health disparities-related articles and stories in print and broadcast media, including films and movies 9. Distribution of health disparities-related stories disseminated through mainstream media outlets 10. Appearances or interviews by speakers	1. Local and national news and media outlets (print, radio, and television) - Access data on news events or stories, publication related to health disparities 2. Review of federal health disparities, focused institutions/centers, public relationship infrastructure (review of organizational charts) 3. Survey of minority or special interest media and news outlets for information on stories, news events related to health disparities 4. Office of Minority Health, National Center on Minority Health and Health Disparities, AHRQ Data from IT Department on website traffic and unique visitors

^a The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

OBJECTIVE 1: AWARENESS

Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial and ethnic minority populations

STRATEGY 4: COMMUNICATION

Create messages targeted towards and appropriate for specific audiences across their life spans, and present varied views of the consequences of health disparities that will compel (motivate/promote) individuals and organizations to take action and to reinvest in public health

ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
1. Establish common messages about ending racial and ethnic health disparities that can be used by all organizations supporting the NPA 2. Create and disseminate health disparity/health equity data briefs based on age, gender, race/ethnicity, health issues, civil rights, socioeconomic status, environmental hazards and geographic location of the targeted population 3. Use data briefs to educate community, opinion, and policy leaders about preventing chronic and infectious diseases, the consequences of health disparities, models and best practices, and proposed solutions for ending health disparities 4. Use blogs, podcasts, text messaging, online and mobile video, e-games, social networks, and other interactive technologies to engage diverse racial and ethnic minorities in conversations and forums on preventing chronic and infectious diseases 5. Create partnerships to appropriately target health disparity/health equity messages to populations across the lifespan 6. Facilitate conversations with community leaders who can enhance the development and dissemination of messages on health equity 7. Execute an organized national campaign with targeted messages for individuals across the lifespan (e.g., children, youth, adults, elderly, etc.), teachers, education system leaders, health professionals, the business community, and policy decision makers using traditional, new, and alternative media for National Minority Health Month and other specific heritage celebration months (e.g., Latino Heritage Month, Black History Month, and American Indian History Month)	 Distribution of common messages about ending health disparities, including the cost of health disparities to society as a whole. Number, distribution, content, and use of health disparity data briefs Distribution and content of viewings or messages on targeted user-generated websites Number and distribution of organizations carrying out campaign activities during National Minority Health Month and other specific heritage celebration months (e.g., Latino Heritage Month, Black History Month, American Indian Heritage Month, etc.) Distribution and content of messages and information on mainstream and culturally specific media outlets that are not health disparities-focused with messages related to health disparities Number of television programs, early care and education curriculum, and reading programs for children with messages related to health disparities 	1. Local networking websites records on user created sites related to health disparities and chronic disease prevention and viewings/visits to these sites (e.g., You Tube, Twitter, Facebook) 2. Content analyses of strategy, communications plans, press releases, reports, and campaign materials of NPA partner agencies for information on messaging 3. National Opinion Survey on Health and Health Disparities 4. Office of Minority Health 5. Cable (e.g., USA Network), major (e.g., NBC), and non-English (e.g., Univision) networks

^a The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

▶ OBJECTIVE: LEADERSHIP

OBJECTIVE 2: LEADERSHIP

Strengthen and broaden leadership for addressing health disparities at all levels

STRATEGY 5: CAPACITY BUILDING

Support capacity building at all levels of the decision-making process as a means of promoting community solutions for ending health disparities

a	2	2
ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
1. Establish and expand access to regional leadership trainings to equip local leaders to: 1) guide prevention and wellness activities; 2) engage the community as equal partners in conducting local assessments; and 3) partner effectively with government, academic, and private institutions on health disparity activities that are relevant to their communities 2. Provide technical assistance, funding, and other resources to improve the capacity of community organizations to collect, analyze, report, and use data for competitive submissions to foundations, government agencies, and other funders 3. Develop or make available planning, operational, and/or leadership tools to assist communities in effectively implementing and/or delivering relevant health disparity- and health equity-related messages 4. Develop or make available tools to assist communities in designing and delivering effective services to eliminate health disparities 5. Develop a network of community organizations, state agencies, academic institutions, and organizations in the nonprofit and public sectors to share best practices and expertise in grant writing, strategic communications, financial planning, and other organizational capacities critical for promoting community solutions for ending health disparities 6. Create standards for agencies and organizations in the public, private, and nonprofit sectors to engage community representatives in decisions about how to address the disparities that affect their communities	1. Degree to which local health disparity efforts are shaped and led by local leaders and, therefore, are tailored to the specific needs and context of their communities 2. Proportion of state and local budgets and foundation grants allocated for technical assistance and other supports to help community organizations address health disparities and health equity 3. Degree to which the goals for delivering relevant health disparity- and health equity- related messages and services were attained 4. Type, frequency, and number of local, state, and regional networks intended to build public, private, and nonprofit organizations' capacities for engaging community representatives in all aspect of planning and implementing solutions for ending health disparities 5. Adoption of standards by agencies and organizations in the public, private, and nonprofit sectors for engaging community representatives in decision-making and evidence of such policies, procedures, and practices	1. Interviews with key informants who provide support and technical assistance to local groups on ending health disparities 2. Survey of community-based groups engaged in health disparities programming 3. AHRQ Health Care Innovations Exchange Health Disparities Database - Review for community projects related to NPA objective(s) 4. APHA Health Disparities Community Solutions Database - Review for community projects related to NPA objective(s) 5. Local health department infrastructure study (data on local health department expenditures) and Census of Governments - Review for funds allocated to community capacity building to address health disparities 6. Survey of major foundations to determine amount of funds allocated to community capacity building to address health disparities

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▶ OBJECTIVE: LEADERSHIP

OBJECTIVE 2: LEADERSHIP

Strengthen and broaden leadership for addressing health disparities at all levels

STRATEGY 6: FUNDING AND RESEARCH PRIORITIES

Improve coordination, collaboration, and opportunities for soliciting community input on funding priorities and involvement in research

1. Broaden eligibility requirements to include state public health agencies as potential grant reviewers and recipients 2. Work with funders to include racial, ethnic, and culturally diverse individuals in funding and research-related programs where they may have historically been excluded 3. Provide funding and other resources to help community-based organizations write and submit quality grant proposals 4. Seek opportunities for community representatives to 1. Scope, size, and distribution of partnerships that involve community-based organizations as equal partners 2. Percent increase in the total funds used to subcontract to community partners addressing at least one of the NPA priorities 3. Number of community representatives/health consumers on grant review panels and as contractors 4. Distribution and diversity of community 2. NIH Portfolio Online Reporting Tool	1. Broaden eligibility requirements to include state public health agencies as potential grant reviewers and recipients 2. Work with funders to include racial, ethnic, and culturally diverse individuals in funding and research-related programs where they may have historically been excluded 3. Provide funding and other resources to help community-based organizations write and submit quality grant proposals 1. Scope, size, and distribution of partnerships that involve community-based organizations as equal partners 2. Percent increase in the total funds used to subcontract to community partners addressing at least one of the NPA priorities 3. Number of community representatives/health consumers on grant review panels and as contractors 3. Number of community representatives/health consumers on grant review panels and as contractors			
advisory committees and to boards of private and non- profit organizations to solicit meaningful input on operational, programmatic, and funding priorities 5. Encourage funders to support multi-agency, public/private collaborative efforts that engage community-based organizations as equal partners 6. Encourage states to make strategic financial and resource investments in local health disparities elimination efforts that build on federal programmatic and resource investments 7. Incentivize state agencies, academic institutions, and private and non-profit organizations that address at least one NPA objective 8. Degree to which data about social determinants and health disparities are used in successful grant proposals 7. Number, distribution, and use of community-focused centers of excellence 8. Establish regional consortia to connect researchers and evaluators with community-based organizations to use research and evaluation information to inform the development and implementation of projects intended to eliminate health disparities and to promote health equity 9. Establish centers of excellence that focus on concerns, strategies, and solutions informed by community leaders and representatives, as well as people affected by health disparities and non-profit organizations 5. Proportion of funds allocated by state and local agencies and organizations that address at least one NPA objective 6. Degree to which data about social determinants and health disparities are used in successful grant proposals 7. Number, distribution, and use of community-focused centers of excellence 8. Establish regional consortia to connect researchers and evaluators with community-based organizations to use research and evaluation information to inform the development and implementation of projects intended to eliminate health disparities and to promote health equity	concerns, strategies, and solutions informed by community leaders and representatives, as well as	health agencies as potential grant reviewers and recipients 2. Work with funders to include racial, ethnic, and culturally diverse individuals in funding and research-related programs where they may have historically been excluded 3. Provide funding and other resources to help community-based organizations write and submit quality grant proposals 4. Seek opportunities for community representatives to be appointed to federal, state, and local agency advisory committees and to boards of private and non-profit organizations to solicit meaningful input on operational, programmatic, and funding priorities 5. Encourage funders to support multi-agency, public/private collaborative efforts that engage community-based organizations as equal partners 6. Encourage states to make strategic financial and resource investments in local health disparities elimination efforts that build on federal programmatic and resource investments 7. Incentivize state agencies, academic institutions, and private and nonprofit research institutions to collaborate with community-based organizations to use research and evaluation information to inform the development and implementation of projects intended to eliminate health disparities and to promote health equity 9. Establish centers of excellence that focus on concerns, strategies, and solutions informed by community leaders and representatives, as well as people affected by health disparities (i.e., community-	MEASURES 1. Scope, size, and distribution of partnerships that involve community-based organizations as equal partners 2. Percent increase in the total funds used to subcontract to community partners addressing at least one of the NPA priorities 3. Number of community representatives/health consumers on grant review panels and as contractors 4. Distribution and diversity of community representatives on federal, state, and local advisory committees and boards of private and non-profit organizations 5. Proportion of funds allocated by state and local agencies and organizations that address at least one NPA objective 6. Degree to which data about social determinants and health disparities are used in successful grant proposals 7. Number, distribution, and use of	1. National Institutes of Health (NIH), Office of Minority Health, national health foundations, state and local health departments - Demographics of grant review panel participants - Demographics of advisory board members - Demographics of the board members of community-based organizations that are grant recipients, contractors, or partners 2. NIH Portfolio Online Reporting Tool 3. State and local health department budgets 4. Grant proposals (e.g., background/context/or rationale section) 5. Survey of community-focused centers of excellence 6. Grant writing technical assistance activities sponsored by HHS

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▶ OBJECTIVE: LEADERSHIP

OBJECTIVE 2: LEADERSHIP

Strengthen and broaden leadership for addressing health disparities at all levels

STRATEGY 7: YOUTH

Invest in young Americans to prepare them to be future health leaders and practitioners by actively engaging and including them in the planning and execution of health initiatives

BENCHMARK:

Increases in the percentage of youth on national, regional, tribal, state, and city/county coordinating bodies for the NPA

ACTIONS ^a	onal, regional, tribal, state, and city/county coo	POTENTIAL DATA SOURCES ^a
 Educate youth about health disparities, health equity, civil rights, determinants of health, and other related topics Involve and engage diverse populations of youth (e.g., age, gender, race/ethnicity, residence, socioeconomic status) in community assessments, planning efforts, and implementation of initiatives Seek opportunities to appoint youth to local, state, tribal, regional, and national advisory committees and boards of nonprofit and private organizations to solicit meaningful input on the operational, programmatic, and funding priorities Train youth to become advocates for their health and well-being Introduce concepts of health disparities, health equity, and determinants of health as part of the k-12 curriculum in schools Train and use youth leaders to educate other youth about health disparities- and health equity-related issues Increase investment in strategies to decrease academic achievement gaps (e.g., in math and science) among minority students and low-income students Improve health career pipeline by providing health care-related courses and transition assistance to minority students and low-income students 	1. Distribution and diversity of youth on governing and advisory boards 2. Number and distribution of health education and promotion programs that train and use youth peer leaders 3. Percent of sessions at conferences that address youth-focused health disparity issues and percent of sessions organized, led, and presented by youth 4. Distribution of national, regional, tribal, state, and local youth organizations that include health disparities as a program or policy priority 5. Number of school programs that incorporate concepts of health disparities, health equity, and determinants of health into their curriculum 6. Improved academic achievement among minority students and low-income students 7. Number of scholarships for minority students and low-income students from high school and community colleges, including minority-serving institutions, who pursue a health-related degree	1. Membership records of local, state, tribal, and national coordinating councils regarding youth participation and leadership 2. Membership records from NPA partners regarding youth participation and leadership 3. Local school districts, state, and tribal data related to academic achievement 4. National Center for Education Statistics 5. College and university financial aid records for scholarship awards by race/ethnicity 6. National Association of Student Financial Aid Administrators

^a The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

▶ OBJECTIVE: HEALTH AND HEALTH SYSTEM EXPERIENCE

OBJECTIVE 3: HEALTH AND HEALTH SYSTEM EXPERIENCE

Improves health and healthcare outcomes for racial and ethnic minorities and for underserved populations and communities

STRATEGY 8: ACCESS TO CARE Ensure access to quality health care for all

BENCHMARK:

Decrease in prevalence of health conditions for which racial and ethnic disparities exist (e.g., asthma, hypertension) every five years

ACTIONS ^a	MEASURES a	POTENTIAL DATA SOURCES ^a
1. Conduct a community assessment to determine the unmet needs of target population and the capacity to provide the intended services 2. Coordinate with Health Information Technology professionals to identify and implement a centralized electronic medical record (EMR) system that is highly compatible (with other systems) to: (1) enable information sharing among providers within and across communities, governments, and civil rights advocacy organizations; and (2) provide individual patients, including the Limited English Proficiency (LEP) population and individuals with disabilities, access to their individual medical records 3. Provide healthcare that focuses on prevention and health promotion and fills gaps in health care services 4. Develop processes to coordinate care and service delivery through increased used of Community Health Workers to ensure comprehensive support to health consumers 5. Develop and strengthen partnerships to reduce barriers to and improve access for the uninsured, underinsured, rural communities, and others with limited access to health 6. Assess the affordability of out-of-pocket healthcare costs for the under-served and low-income population and identify strategies for reducing these costs 7. Increase distribution of providers in medically underserved areas to provide first contact, comprehensive services, and continuous, coordinated care 8. Adopt and adhere to quality improvement standards (i.e, safe, patient) 9. Improve access to medical information and advice on environmental conditions that influence health	1. Proportion of providers that purchased and use EMR systems 2. Decrease in number of visits to the emergency room and use of ambulances. 3. Decrease in number of hospitalizations for manageable chronic conditions 4. Increased access to and use of preventive care services (e.g., increase in health screening rates) 5. An infrastructure for monitoring the percent of under-served and low-income populations who do not access healthcare due to high out-of-pocket cost 6. Increase in health and wellness programs that target the reduction of health disparities and improved health and wellbeing outcomes (e.g., reduced absenteeism at work, quality of life satisfaction, etc.) 7. Increase in healthcare providers (e.g., physician offices, hospitals, community clinics) that survey consumers about their satisfaction and interactions with their providers 8. Provider-patient ratio in medically underserved areas 9. Increase in community health clinics or programs in health care delivery settings with expertise in environmental conditions/hazards that influence health	1. U.S. Census Bureau 2. Current Population Survey 3. National Health Interview Survey (NHIS) 4. AHRQ State Snapshots of Health Quality 5. National Hospital Discharge Survey 6. Healthcare Cost and Utilization Project (The State Emergency Department Database) 7. The Emergency Room Database 8. Indian Health Service HP/PD Wellness Data

^a The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

► OBJECTIVE: HEALTH AND HEALTH SYSTEM EXPERIENCE

OBJECTIVE 3: HEALTH AND HEALTH SYSTEM EXPERIENCE

Improves health and healthcare outcomes for racial and ethnic minorities and for underserved populations and communities

STRATEGY 9: HEALTH COMMUNICATION

Enhance and improve health service experience through improved health literacy, communications, and interactions

ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
languages spoken by surrounding communities 2. Develop and implement communication strategies for individuals with low-level or marginal literacy skills using culturally appropriate avenues in the community and direct-to-consumer methods for delivering health messages 3. Expand the use of eHealth marketing, mobile, and interactive media, such as websites, text messaging, blogs, podcast, mobile and online games, and social networking, to engage and communicate information in disease prevention, health promotion and health protection 4. Enhance and disseminate guidelines for effective health literacy efforts 5. As produced to the produce of	anther, content, and distribution of alth communication materials veloped in primary languages spoken the surrounding community Intent of health education efforts that e e-marketing and interactive media to gage and communicate information on lease prevention, health promotion, and alth protection Iplication of guidelines on health the practice of guidelines on health the practice of guidelines on health the production programs Itient satisfaction with their healthcare providers Intent satisfaction with their healthcare state data on the percent of derserved and uninsured	1. National Center for Education Statistics National Assessment of Adult Literacy Health Literacy Component 2. National Center for the Study of Adult Learning and Literacy Resources and briefs on health literacy 3. Ambulatory Care Experience Survey and Primary Care Assessment Survey Data from items/subscales related to patient perceptions of communication with provider 4. Health literacy advocacy organizations Resources/data on creation of health literacy guidelines Number of public and private sector organizations reporting adherence to guidelines for health literacy 5. U.S. Department of Health and Human Services, NIH, AHRQ press releases, communications, and planning documents related to development of national guidelines 6. Accreditation Association for Ambulatory Health Care (AAAHC) and Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)

^a The actions, measures, and potential data sources do not necessarily correlate to each other; instead, they are intended to respond to the strategy to which they are connected.

▶ OBJECTIVE: HEALTH AND HEALTH SYSTEM EXPERIENCE

OBJECTIVE 3: HEALTH AND HEALTH SYSTEM EXPERIENCE

Improves health and healthcare outcomes for racial and ethnic minorities and for underserved populations and communities

STRATEGY 10: EDUCATION – PROMOTE SCHOOL READINESS

Substantially increase, with a goal of 100%, high school graduation rates by establishing a coalition of schools, community agencies, and public health organizations to promote the connection between educational attainment and long-term health benefits; and ensure health education and physical education for all children

BENCHMARK:

Increased high school graduation rates and local coalitions working to promote holistic school readiness

	les and local coantions working to promote non-	
ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
 Establish a national health, school, and parent alliance to promote school readiness Include increasing high school graduation on the health policy agenda and promote policies that support mandatory education through age 18 Offer trainings and professional development to educators and school officials, community agencies' staff, health care providers, and public health professionals on the linkage and importance of physical education and healthy nutrition on learning readiness of children Establish school-based clinics to provide comprehensive services Develop and implement strategies to reduce health and environmental conditions that affect school attendance and chronic absenteeism Develop effective strategies for supporting parents in addressing the social determinants that impact their children's life. Increase school readiness by focusing on early childhood care and education, including but not limited to increased collaboration and communication among and between early intervention, special education, early education, and family day care providers Assist children and their families in obtaining primary care by strengthening community-based health care systems Improve school climate and culture to support children's readiness and ability to learn 	1. An infrastructure for addressing barriers to high school graduation 2. Number of policies and programs implemented with specific strategies and actions to promote school readiness and high school graduation 3. Effectiveness of school-based partnerships in providing services to address school readiness and other health issues faced by at-risk children 4. Policies and programs enacted to reduce barriers to school attendance, improve the quality of schools, and support parental engagement 5. Number of forums convened among early childhood educators, special education providers, early intervention, and health and social service professionals to improve gaps in services and to ensure smooth transitions, especially for children ages 3 to 5 6. Percent of community-based health care centers with increase in new patients; decrease in appointment "no show" rate 7. Proficiency tests scores, expenditure per pupil, and student-to-teacher ratio	1. Analysis of local, state, and national polices for information and emphasis on high school graduation 2. Annie E. Casey Foundation Kids Count Data - State-level data on education 3. National Center for Higher Education Management Systems - Public high school graduation rates by year and by site. 4. Local, state, tribal and federal budgets; Local Health Department Infrastructure Study (data on local health department expenditures); Census of Governments; and National Assembly on School-Based Health Care - Review for allocation of funding related to school-based clinics - National School-Based Health Care Census 5. Survey of local and state health departments, school districts, public health organizations, and community groups on development of coalitions to promote linkages between health and educational attainment. 6. U.S. Department of Education No Child Left Behind - Graduation rates 7. State and Tribal Departments of Education

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► OBJECTIVE: HEALTH AND HEALTH SYSTEM EXPERIENCE

OBJECTIVE 3: HEALTH AND HEALTH SYSTEM EXPERIENCE

Improves health and healthcare outcomes for racial and ethnic minorities and for underserved populations and communities

STRATEGY 11: CHILDREN

Ensure the provision of needed services (e.g., mental, oral and physical health, and nutrition) for at-risk children

1. Increase in proportion of families who have medical homes 2. Collaborate with providers to assure that all children have up-to-date and appropriate well-child wists, including medical and a dental home 3. Assure that all children are appropriately immunized before entering the school system that she hearth screenings 4. Establish on-going health communication to educate at-risk children and their pracents about health care needs 5. Facilitate identification, referral, linkage/coordination, engagement, and follow up for children and their remach on childres if heart-to-reach populations with health care needs 6. Establish procedures for tracking, disseminating and improving child health outcomes among hard-to-reach populations dispression, ohld dispression, ohld shaws and register, parental sustance abuse, powerly, environmental risk, food interest children's health 9. Ensure safe, healthy, and equitable environments for children and families and children and families and children and families of the safety of the children and families and children's health other social support systems for families and children's health and the safety, domestic violence) that affect children's health and the safety of the safety	ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
	for mental, physical, and dental care and for establishing a medical and a dental home 2. Collaborate with providers to assure that all children have up-to-date and appropriate well-child visits, including medical, dental, developmental, social, and mental health screenings 3. Assure that all children are appropriately immunized before entering the school system 4. Establish on-going health communication to educate at-risk children and their parents about healthy nutrition and physical activity and their impact on child's life and functioning 5. Facilitate identification, referral, linkage/coordination, engagement, and follow up for children and their families in hard-to-reach populations with health care needs 6. Establish procedures for tracking, disseminating and improving child health outcomes among hard-to-reach populations 7. Address stressors (e.g., homelessness, maternal depression, child abuse and neglect, parental substance abuse, poverty, environmental risk, food insecurity, domestic violence) that affect children's health 8. Promote linkages between medical, prevention, and other social support systems for families and children 9. Ensure safe, healthy, and equitable environments for children and families 10. Promote collaboration among pediatricians, early educators, other health and social service providers, and families to ensure school readiness 11. Collect and disseminate information to the public on "non-insurance" barriers to care which prevent children from receiving equal access to quality care	have medical homes 2. Increase in the early periodic screenings, diagnostic, and treatment rates 3. Increased identification, referral and treatment for children facing medical and developmental issues and other health issues 4. Percent of funding allocated to support state, tribal, and local health agencies in providing no cost or low cost immunization 5. Number, distribution, and content analysis of social marketing campaigns on nutrition and physical activities for children 6. Increase in funds allocated to address stressors that affect children's health 7. Increase in policies and programs that address stressors that affect children's health 8. Establishment and use of community report cards on children's health 9. Increase in the number of pediatric clinics in at-risk communities with expertise in environmental	Initiative issue briefs, reports on access to care and services, quality, and disparities among low-income children 2. National Survey of Children with Special Health Care Needs (NS-CSHCN) - Data on extent to which children with special health care needs (CSHCN) have medical homes, adequate health insurance, and access to needed services, as well as their care coordination and satisfaction with care 3. Local, state, tribal budgets; Local Health Department Infrastructure Study (data on local health department expenditures); Census of Governments - Review for allocation of resources to low or no costs immunization services for at-risk children 4. The Annual Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) Report 5. National Children's Health Survey - Data on children's health status (physical and oral health) 6. Pediatric Nutrition Surveillance System (PedNSS) - Data on nutritional status for children 0-5 for federally funded

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► OBJECTIVE: HEALTH AND HEALTH SYSTEM EXPERIENCE

OBJECTIVE 3: HEALTH AND HEALTH SYSTEM EXPERIENCE

Improves health and healthcare outcomes for racial and ethnic minorities and for underserved populations and communities

STRATEGY 12: OLDER ADULTS

Enable the provision of needed services and programs to foster healthy aging

BENCHMARK:

Increased provision and utilization of coordinated, holistic care for and by older adults

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ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
 Increase the number of older adults who are appropriately immunized (e.g., annual influenza and the pneumococcal vaccination) through health fairs, community-based and clinical partnerships, and other innovative approaches Establish collaborative partnerships between medical and community-based providers to ensure that all older adults have access to and appropriate medical (i.e., primary care provider) and dental services, as well as nutritional and social services Increase the use of preventive health screenings (e.g., mammography, colorectal, diabetes, etc.) Enhance access to evidence-based, self-management programs for older adults Increase the number of accessible community-based provider caregiver training programs Establish Naturally Occurring Retirement Communities (NORCS) within urban and underserved areas through national, state, and community partnerships Increase the number of older adults living in rural, urban or tribal communities who have access to core services (e.g., nutrition/meal, transportation, and respite care) provided by area agencies on aging Support collaboration between area agencies on aging, federally qualified health centers, and/or state and local offices of minority health to ensure access for racial and ethnic minority seniors 	 Number and distribution of older adults within county/planning and service area (PSA) receiving immunizations Number and distribution of older adults with a health home Number and distribution of community-and home- based caregiver training programs Number and distribution of evidence-based health and wellness programs Number and distribution of NORCs Number of preventable emergency room visits and short-term, disease-specific hospitalization rates at local, state, and national levels among those who received prevention benefits and/or participated in health and wellness classes Percent increase in funding allocated to implement and sustain older adult services within the Aging Network 	1. Medicare and Medicaid data 2. AHRQ National Healthcare Disparities Report 3. Administration on Aging (AoA) statebased data systems - Aging Integrated Database (AGID) and grant reports 4. CDC Behavioral Risk Factor Surveillance System data (BRFSS) 5. Federal Interagency Forum on Aging-Related Statistics 6. The State of Aging and Health in America Report data 7. The National Archive of Computerized Data on Aging (NACDA) 8. National Center for Health Care Statistics 9. Medical Expenditure Panel Survey (MEPS)

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▶ OBJECTIVE: CULTURAL AND LINGUISTIC COMPETENCY

OBJECTIVE 4: CULTURAL AND LINGUISTIC COMPETENCY

Improve cultural and linguistic competency

STRATEGY 13: WORKFORCE TRAINING

Develop and support broad availability of cultural and linguistic competency training for physicians, other health professionals, and administrative workforces that are sensitive to the cultural and language variations of racially and ethnically diverse communities

ACTIONS MEASURES POTENTIAL DATA SOURCES 1. Collaborate with the business sector and influence 1. Existence and increased use of approved 1. Assessment of organizations and employers to encourage continuing education in modules that provide standardized agencies' cultural and linguistic training and continuing education on cultural and linguistic competency for physicians, competency other health professionals, and administrative staff cultural and linguistic competency, who participate in their purchased health insurance including the number of credits that can 2. National Center for Cultural plans, including nondiscrimination requirements under be earned, and percent of staff trained Competence's (NCCC's) technical Title VI of the Civil Rights Act of 1964 assistance and training logs 2. Increased and improved systematic 2. Highlight best practice models in federal, tribal, state, collection and documentation of 3. Survey of cultural and linguistic and local public health agencies that provide consumers' primary languages and competency resource centers continuing education in cultural and linguistic dialects and use of findings to inform competency planning and provision of services 4. Survey of health-related accrediting bodies (e.g., the JCAHO, the 3. Develop and disseminate cultural and linguistic 3. Ratio of language and culture of staff to Accreditation of Ambulatory Health Care [AAHC], and the Utilization competency training curricula for healthcare providers consumers serviced by program and healthcare administrative staff Review Accreditation Commission [URAC], also known as the American 4. Allocated resources and incentives, proportionate to other key aspects of 4. Incorporate cultural and linguistic competency into the Accreditation HealthCare training and professional development requirements, professional development, for training Commission) including Title VI requirements, for all healthcare and continuing education in cultural and providers and healthcare administrative staff linguistic competency for physicians and other health professionals and 5. Assist public health clinics, healthcare organizations, administrative staff community clinics, and other providers to implement 5. Allocated resources, proportionate to effective language access policies, practices, and procedures that comply with Title VI other key aspects of service provision used for translation and interpretation 6. Use telecommunications, videoconferencing, and support other technology to deliver services to people who live 6. Inclusion of required cultural and in geographically isolated places, have no access to transportation, and/or speak limited or no English linguistic training and continuing education as part of job performance 7. Create and expand resource centers for cultural and linguistic competency, and publicize the availability of these centers 7. Inclusion of cultural and linquistic competency information in orientation for 8. Establish a regional report card on adoption of new staff **Culturally and Linguistically Appropriate Services** (CLAS) standards 8. Inclusion of cultural and linguistic competency as criteria for licensure by accrediting bodies 9. Responsiveness of cultural and linguistic competency resource centers to consumers and healthcare professionals

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▶ OBJECTIVE: CULTURAL AND LINGUISTIC COMPETENCY

OBJECTIVE 4: CULTURAL AND LINGUISTIC COMPETENCY

Improve cultural and linguistic competency

STRATEGY 14: DIVERSITY

Increase diversity and competency of the healthcare and administrative workforces through recruitment and retention of racially, ethnically, and culturally diverse individuals and through leadership action by healthcare organizations and systems

BENCHMARK:

Increases in diversity of leadership in local and state health care professional associations as well as in the leadership of major health organizations (e.g., health systems, hospitals, etc.)

major neutra organizations (c.g., neutra systems, nespitatis, etc.)						
ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a				
1. Develop policy agenda to expand the diversity and cultural and linguistic competency of the healthcare workforce 2. Recruit racially, ethnically, and culturally diverse individuals through faith- and community-based organizations and ethnic media 3. Build relationships and collaborate with higher learning institutions, including minority-serving institutions (e.g., Historically Black Colleges and Universities), tispanic, and Tribal Colleges and Universities) to increase recruitment of minorities into public health and environmental-related programs 4. Work with high schools and colleges to fund programs that support the early recruitment of racially, ethnically, and culturally diverse youth into the health professions 5. Increase the number of bridge programs between institutions of higher education and employers in the health sector to provide greater opportunities for racially, ethnically, and culturally diverse students to enter the healthcare workforce 6. Work with professional medical, public health and environmental health associations to increase inclusion of racially, ethnically, and culturally diverse individuals in their membership and leadership	1. Number and type of policies developed and implemented by healthcare organizations, accrediting bodies, education programs, and state health agencies to support the diversification of the healthcare workforce 2. Percent of health related professional degrees awarded to members of racial and ethnic minority groups 3. Distribution and percent of schools of medicine, schools of nursing, and allied health professional training schools whose basic curriculum includes core competencies in cultural and linguistic appropriate health promotion and disease prevention education 4. Number of internship and fellowship programs for racially, ethnically, and culturally diverse students and graduates in the health field 5. Percent of minorities by health profession and position 6. Collection of race and ethnicity data by professional associations to monitor the diversity of their membership and leadership	1. Survey of major healthcare organizations, accrediting bodies, health and allied health education programs, and state health agencies 2. The Office of Health and Workforce Policy and Performance Reports 3. Survey of major professional health-related education associations (e.g., American Dental Education Association of Colleges of Nursing, Association for American Medical Colleges, Association of Physician Assistants) 4. U.S. Census Bureau Special Equal Opportunity Employment tabulation				

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► OBJECTIVE: CULTURAL AND LINGUISTIC COMPETENCY

OBJECTIVE 4: CULTURAL AND LINGUISTIC COMPETENCY

Improve cultural and linguistic competency

STRATEGY 15: STANDARDS

Require interpreters and bilingual staff providing services in languages other than English to adhere to the National Council on Interpreting in Health Care (NCIHC) Code of Ethics and Standards of Practice

BENCHMARK:

Increased number of NCIHC certified interpreters

ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
 Promote the NCIHC Code of Ethics and Standards of Practice Assist states and tribal health offices to develop a comprehensive plan to comply with the NCIHC Code of Ethics and Standards of Practice Collaborate with state and local governments, tribes, health care financing entities, and managed care organizations to develop a standard template that complies with NCIHC Code of Ethics and Standards of Practice Collaborate with accrediting bodies for healthcare organizations to integrate NCIHC Code of Ethics and Standards of Practice into accreditation requirements Collaborate with NCIHC to promote assessment of compliance with NCIHC Code of Ethics and Standards of Practice Require state offices of minority health to provide oversight and documentation of the rate of compliance with NCIHC Code of Ethics and Standards of Practice Increase the number of interpreters who meet professional standards for medical interpretation 	1. Number and percent of states and tribal health offices that have developed a formal comprehensive plan that complies with the NCIHC standards 2. Type and number of accrediting bodies that include NCIHC standards in their requirements 3. Degree to which federal- and statefunded health services, health financing entities, managed care organizations, and healthcare organizations comply with NCIHC Code of Ethics and Standards of Practice 4. Percent increase of interpreters certified by training entities that comply with NCIHC Code of Ethics and Standards of Practice 4. Practice	1. Survey of state and tribal health offices 2. Survey of accrediting bodies (e.g., JCAHO, AAHC, URAC) 3. NCIHC records 4. The National Board of Certification for Medical Interpreters and state medical interpreter networks or associations

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► OBJECTIVE: CULTURAL AND LINGUISTIC COMPETENCY

OBJECTIVE 4: CULTURAL AND LINGUISTIC COMPETENCY

Improve cultural and linguistic competency

STRATEGY 16: INTERPRETATION SERVICES

Improve financing and reimbursement for medical interpretation services

BENCHMARK:

Increased percent of insured population whose public and private health insurers offers full reimbursement for medical interpretation costs

ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a
1. Establish an appropriate interpreter-to-client ratio to guide healthcare providers in assuring access to quality interpretation services 2. Adopt the availability of trained and certified interpreters as a quality improvement indicator for appropriate reimbursement 3. Monitor availability, accessibility, and consumer satisfaction with the quality of interpretation services	1. Healthcare providers' compliance with established interpreter-to-client ratio 2. Percent of agencies and healthcare organizations and services that adopt interpretation as a quality improvement indicator 3. Consumer satisfaction with the availability and accessibility of interpretation services 4. Establishment of financial incentives for hospitals, other health care settings, physicians, and other health professionals to support interpreter services and compensate for additional time required for interpretation support 5. Inclusion of interpretation requirement in states' procurement language for contracts with managed care organizations and healthcare providers	1. The National Board of Certification for Medical Interpreters and state medical interpreter networks or associations 2. American Health Quality Association and State Quality Improvement Organizations 3. Centers for Medicaid and Medicare Services 4. State procurement or purchasing officers 5. Survey of the National Association of State Procurement Officials' membership 6. Consumer surveys

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▶ OBJECTIVE: RESEARCH AND EVALUATION

OBJECTIVE 5: RESEARCH AND EVALUATION

Improve coordination and utilization of research and evaluation outcomes

STRATEGY 17: DATA

Ensure the availability of health data on all racial and ethnic minority populations

BENCHMARK:

Institute standard race and ethnicity categories in all national healthcare-related databases					
ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a			
 Support targeted population and sub-population studies that provide disaggregated data to more accurately explain the health status of all groups Develop and evaluate a framework for information sharing for systems and data policy organizations on the collection, reporting, and use of race-, ethnicity-, health disparities-, and health equity-related data Establish, fund, and disseminate information about publicly available surveillance systems to track the cultural, linguistic, environmental, and socioeconomic factors of disease that can be causal, contributory, or protective in relation to health Create educational tools for community members to readily access state-level surveillance health information (e.g., a user-friendly search engine with results that are easy to read and understand) Apply existing qualitative and quantitative methodologies to increase the sample size and improve the collection of data and data analysis on small racial and ethnic sub-populations Improve current data collection systems and efforts to increase the accuracy and consistency for how data about race, ethnicity, effects of racism, and categorization of people are gathered, analyzed, reported, and used Support the legitimization of including community stakeholders, particularly from racial and ethnic minority populations, in all aspects of the research process 	1. Increased number, accessibility, and use of health information and surveillance systems that adequately represent the conditions experienced by and facing diverse local communities 2. Increased number of health disparity-related reports that include cultural, linguistic, environmental, and socioeconomic factors 3. Development and legitimization of improved research designs for assessing health disparities and equity, including the inclusion of community stakeholders, particularly from racial and minority populations, in all aspects of the research process 4. Distribution and type of organizations in the private, public, and nonprofit sectors, including insurers, that adhere to a common set of standards for data collection and data use, including the collection of race, ethnicity, and language data 5. Number and distribution of community-level users of publicly available data sources (e.g., track number of unique hits for state data and possibly the number of reports generated from use of the data)	1. Health-related journals (e.g., American Journal of Public Health, Health Services Research) 1. Content analyses of articles, studies, and information published 2. Center for Health Care Strategies 3. National Center for Health Statistics 4. Health Research and Education Trust and Kaiser Permanente Partnership Group's publications and policies about collection of race and ethnicity data 5. State Departments of Public Health and other state agencies			

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▶ OBJECTIVE: RESEARCH AND EVALUATION

OBJECTIVE 5: RESEARCH AND EVALUATION

Improve coordination and utilization of research and evaluation outcome

STRATEGY 18: AUTHENTIC COMMUNITY-BASED RESEARCH [AND ACTION] AND COMMUNITY-ORIGINATED INTERVENTION STRATEGIES

Invest in authentic community-based participatory research and evaluation of community-originated intervention strategies in order to enhance capacity development at the local level for ending health disparities

ACTIONS ^a MEASURES ^a POTENTIAL DATA SOURCE				
ACTIONS	MEASURES ^a	POTENTIAL DATA SOURCES ^a		
 Conduct inventory and evaluate the importance of prevention, primary care, health promotion, and Title VI-compliant culturally and linguistically appropriate interventions that have significantly improved health (including health behaviors, beliefs, and perceptions) throughout the lifespan Promote and disseminate best and evidence-based practices on a large scale Identify and work with community-based programs to determine best practices that are easily replicable Establish a Community-Based Evaluation Support Network to develop and guide evaluations of research programs Work with researchers and evaluators to develop practical models for evaluating community-originated intervention strategies, including new, dynamic metrics from interventions that reflect communities' immediate needs Engage community members and enhance their capacity to be equal partners in the conceptualization, planning, design, implementation, interpretation, evaluation, and dissemination of public health interventions, programs, and initiatives Form sustainable partnerships among academic/research communities, civil rights advocacy groups, and community organizations at the local, state, tribal, and regional levels Strengthen community ownership of data and research and evaluation products by promoting the principles of community-based participatory research Integrate Title VI-compliant protocols into requests for research proposals and funded projects Create a formally recognized community-based participatory research participatory research panel in all agencies that fund health disparities research 	 Number and type of community-originated interventions and programs identified and evaluated Increased number and funding amount of evaluation grants and contracts for community-based, health disparities interventions and programs Development and use of a Community-Based Evaluation Support Network and a set of standards to guide evaluations Development and application of standardized community-generated evaluation metrics Number of new community-originated models published in the academic literature Increased funding of community-based participatory research (CBPR) that addresses health disparities and health equity (ensure community members are engaged in the planning, design, evaluation, and dissemination of public health education, programs, disease prevention and emergency preparedness) Increased number of sustained academic/research-community partnerships that adhere to community-based participatory research standards Increased number of agencies and health funders that support community learning processes and training to help community members interpret, use, and discuss research in equity plans for their community Number and distribution of private and public agencies at the local, state, tribal, and federal levels , that create a formal CBPR review panel for review of research proposals 	 Survey of community-originated interventions and programs Federal, state, tribal, and local health agencies and health foundations (e.g., National Institutes of Health, Centers for Disease Control and Prevention, Center for the Advancement of Health Disparities Research, Robert Wood Johnson Foundation, The California Endowment, W.K. Kellogg Foundation, Health Resources and Services Administration) Review of budgets to determine proportion of funds allocated for evaluation Survey of Community-Based Evaluation Support Network users Major health journals (e.g., American Journal of Public Health, American Journal of Community Psychology, Journal of Health Care for the Poor and Underserved) Community-College/University Partnerships for Health Survey of federal, state, tribal, and local health agencies and health foundations to determine their support of CBPR practices and community learning processes and training 		

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▶ OBJECTIVE: RESEARCH AND EVALUATION

OBJECTIVE 5: RESEARCH AND EVALUATION

Improve coordination and utilization of research and evaluation outcomes

STRATEGY 19: COORDINATION OF RESEARCH

Support and improve coordination of research that enhances understanding about, and proposes methodology for, ending health and healthcare disparities

BENCHMARK:

Increased cross-disciplinary and cross-agency supported research at the federal level

increased cross disciplinary and cross agency supported research at the reactur level					
ACTIONS ^a	MEASURES ^a	POTENTIAL DATA SOURCES ^a			
1. Improve integrated research to understand the reasons for systemic and continuous disparities in targeted health conditions 2. Evaluate "best practices" occurring at multiple levels of public health systems to identify practices and their components that have contributed to improved health outcomes 3. Increase collaborations and improve communication for health disparities research across the public/private sectors 4. Design and legitimize appropriate research designs for evaluations of health disparities interventions—with the inclusion of community stakeholders 5. Develop teaching modules that educate researchers and communities on how to develop and implement successful collaborative, health promotion and prevention research projects which address health disparities that comply with the nondiscrimination requirements of Title VI	1. Increased funding of research projects, especially integrated and cross-disciplinary research projects on health disparities and systemic barriers to health equity 2. Number and type of evidence-based "best practices" evaluated, disseminated, and applied 3. Increased joint funding and cosponsorship of health disparities research by private sector, tribal governments, and the federal government on health disparities research 4. Application of cross-training modules that educate researchers and communities about critical factors that need to be addressed in health disparities research	1. National Institutes of Health, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, State Departments of Health, major health foundations (e.g., Robert Wood Johnson Foundation, The Commonwealth Fund), and professional associations (e.g., American Diabetes Association, American Heart Association) 2. Office of Minority Health Resource Center, Center for Disease Control and Prevention (e.g., compendium of promising or evidence-based practices), and annual conferences of professional associations (e.g., American Evaluation Association, American Public Health Association) 3. Survey of published research in health and related field to determine private-public sponsorship and authorship 4. Office of Minority Health Resource Center's Capacity Building Division, Association for Schools of Public Health's Health Disparities Research and Diversity Resource Center			

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► OBJECTIVE: RESEARCH AND EVALUATION

OBJECTIVE 5: RESEARCH AND EVALUATION

Improve coordination and utilization of research and evaluation outcomes

STRATEGY 20: KNOWLEDGE TRANSFER

Expand and enhance knowledge transfer regarding successful programs that are addressing social determinants of health (e.g., housing, education, poverty)

ACTIONS ^a MEASURES ^a POTENTIAL DATA SOURCES					
1. Facilitate the efficient translation and dissemination of Title VI-compliant culturally and linguistically appropriate interventions that have been shown to improve health 2. Provide training and technical assistance to community stakeholders on the use, interpretation, and transmission of data 3. Provide Title VI-compliant training and technical assistance to researchers and evaluators on how to appropriately engage communities in research 4. Provide training and technical assistance to researchers and evaluators on how to make their findings useful to policy- and other decision-makers 5. Assist with the translation of NPA findings into innovative promising community practices and the wide-scale promotion of their use	1. Distribution and application of standard training and technical assistance materials on data-informed decision-making 2. Degree to which promising community practices are adopted by state, tribal, and local agencies and nonprofit organizations 3. Application of knowledge about use of data, research and evaluation findings, and community engagement in the design or improvement of programs to eliminate health disparities 4. Degree to which research and evaluation findings are used in decision-making about policies, procedures, and practices to eliminate health disparities	1. Office of Minority Health Resource Center Capacity Building Division 2. AHRQ Knowledge Transfer/Implementation Program 3. Grant submissions in response to requests for proposals distributed by federal and state agencies to eliminate health disparities			

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Implementing the National Plan

STRATEGY AND APPROACH

One of the most important policy actions for addressing health disparities in this country is creating a national plan based on a collaborative, multi-sectoral approach. In general, there is broad agreement that no one sector can address complex issues independently and that cohesive action is a critical component for driving change. 1,2,3,4 However, the existence of a national plan that has been collaboratively developed does not in and of itself lead to the achievement of intended outcomes. Success is dependent on the ability of stakeholders across sectors to implement and refine the strategies and actions contained in the plan over time.

Experts in strategy formulation and change management agree that the critical flaw of strategic plans is the failure to appropriately implement them. ^{5,6} In fact, most argue that creating the strategy is not nearly as difficult as its implementation. Many strategic plans are not effectively implemented because they fail to address common pitfalls that derail execution. ^{7,8} The implementation approach for the *National Plan for Action* takes into account that planning and implementation processes are connected and build on each other, more people across sectors and levels will be involved, and actions and progress will take time. In this regard, the implementation approach is based on an action management structure that requires stakeholder leadership, encourages broad participation, promotes partnership development, facilitates bi-directional information flow and communications, and establishes accountability for progress.9

The implementation approach described in this chapter was shaped by information obtained during several NPA meetings; the general literature on execution and change management; and a meeting of a diverse group of experts and stakeholders who provided specific considerations and recommendations for implementing the National Plan for Action.

CONCEPTS

The number of individuals and organizations working to reduce disparities in health and health outcomes in the United States has increased exponentially over the past decade. This growth has led not only to increased knowledge and action, but also to a need for improved leadership, cohesion, and coordination of national efforts. The National Plan for Action is intended to fill this need, and its strength can be measured

"...it is one thing to formulate — it is quite another to implement."

- Lawrence G. Hrebiniak

Associate Professor of

Management,

Wharton School of the

University of Pennsylvania

by the collective power of the many individuals and organizations that have contributed to its development. The next step is to build on the approach used in developing the National Plan for Action and to create an environment that fosters successful implementation. Beyond sound planning and the avoidance of common pitfalls, the most important step in successfully implementing the National Plan for Action is effectively engaging stakeholders.

A set of key concepts are required for effectively guiding stakeholders throughout the implementation process. These concepts include:

- LEADERSHIP: Organize or use existing bodies at multiple levels to provide leadership and accountability for the National Plan for Action. These bodies must be capable of managing broad participation, coalescing wide-ranging actions, and creating change.
- OWNERSHIP: Incorporate actions that support ownership by stakeholders at all levels, are inclusive, and improve alignment across sectors.
- PARTNERSHIP: Foster and create new, more meaningful partnerships by leveraging existing partnerships and resources.
- CAPACITY: Improve opportunities for individuals and organizations to participate by building capacity for all to contribute.
- ◆ COMMUNICATION: Create or support effective mechanisms for sharing information often, managing communications, and routinely celebrating success.

These concepts are embodied in the actions included in Chapter 3 and in the sections that follow. Collectively, these concepts support the development of an inclusive structure to implement the National Plan for Action, promote development of partnerships, and facilitate communications across a complex network of individuals and organizations.

STRUCTURE AND ACCOUNTABILITY

The overall structure for implementation includes two primary components: (1) Federal leadership; and (2) voluntary multi-sector, multi-level boards of advisors. The Federal Office of Minority Health will serve as the lead entity for coordinating and supporting implementation, evaluation, and sustainability. These efforts will be supported by the Federal Interagency Management Team, or Federal Team, which was specifically established to guide the development of the NPA. The Federal Team is comprised of representatives from the Federal Departments of Health and Human Services, Agriculture, Education, Housing and Urban Development, Transportation, Defense, Commerce, Veterans Affairs, and the Environmental Protection Agency.

Federal Leadership

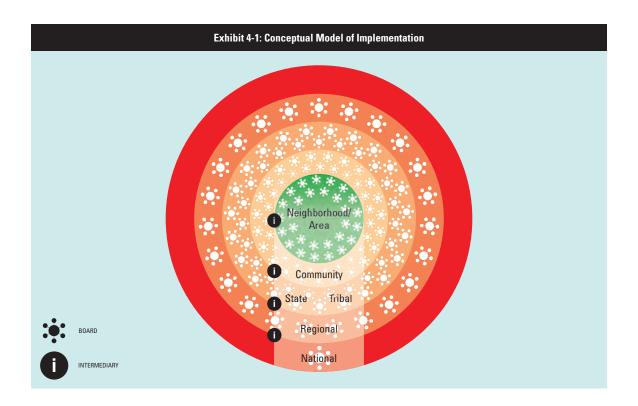
The mission of the Federal Team is to foster communication and guide the activities of the NPA within federal agencies and their partners. It also seeks to increase the efficiencies and effectiveness of policies and programs at the national, state, tribal, and local levels that work toward ending health disparities. Two of the Federal Team's nine goals are particularly relevant to implementing the National Plan for Action: (1) identifying opportunities for agency-collaborations, partnerships, and communications that directly or indirectly impact NPA outcomes; and (2) collaborating on guidance for community-level health disparities programs as a means for improving cohesion, implementation, and outcomes of programs funded by Federal agencies. The Federal Team will support meaningful and effective implementation, evaluation, and sustainability activities.

Boards of Advisors

The second component of the implementation strategy includes voluntary multi-sector, multi-level boards of advisors that will provide action management, information flow, and communications support. The boards will lead activities for achieving progress, assuring accountability, and driving sustainability of national strategies and actions. They will be established at the national and regional levels, expanding to the state, tribal, community, and neighborhood/area levels over time.

Although including individuals at the neighborhood/area level adds complexity, it is optimal for ensuring that strategies and actions reach, are appropriate for, and are driven by people at the grassroots level. Change is desired at all levels but is particularly important at the individual level. Establishing organized opportunities for action at the neighborhood/area level recognizes the value of individuals and brings them "to the table;" allows application of national actions in more pragmatic ways; enhances capabilities and knowledge; improves alignment on issues of importance within communities; and expands the number of people engaged and working on common objectives. It is anticipated that the self-directed/self-selected formation of neighborhood/area and community level boards will catalyze and organize the discussions that are currently taking place.

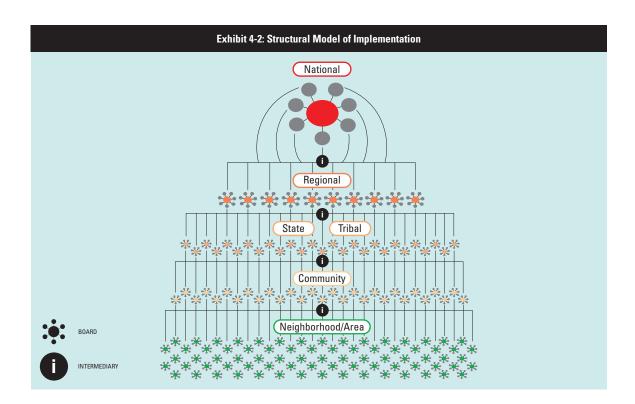
Exhibit 4-1 depicts the conceptual model of the boards. The concentric circles are intended to show that improving the health and health outcomes of people is at the center of the NPA and that broader activities are driven by this objective. The exhibit also demonstrates inclusion with a significantly greater number of boards at the neighborhood level compared to the national level. This approach supports an equal view of the boards, the relationship of boards across geographic areas, and the boards' shared responsibility for collective action.



The boards are intended to create a ripple effect; for every significant action there will be an important and related response. Neighborhood/area-level boards work closely with community boards to drive local priorities; community boards work collaboratively with state and/or tribal boards to ensure appropriate representation of local needs. In turn, state and/or tribal boards coordinate with regional boards to identify priorities, improve cohesion, and obtain resources and other support. Exhibit 4-2, the Structural Model of Implementation, provides an alternative view of the conceptual model.

While the boards interact with one another, they are also intended to define themselves independently. Each board should have the flexibility to define its participants' roles and responsibilities; assume ownership for advancing the national strategies and actions; and determine its appropriate functions. Flexibility is of paramount importance to the success of the implementation process. It allows the use of existing infrastructure and leadership that may be most suited for ensuring success, as well as opportunities for leveraging other efforts that are advancing or institutionalized.

Some of the most critically important tasks of the boards will focus on lateral leadership, i.e., cross boundary leadership that involves individuals and/or organizations over whom the boards have no control. This type of leadership is collaborative and allows members to share common objectives and strategies, responsibility, mutual investment, and accountability for progress. 10 Creative and informed leveraging of



resources and partnerships will drive efficiencies by minimizing duplication and missed opportunities. It is anticipated that this multi-dimensional and multi-level board structure will lead to the natural emergence of "enlightened leadership" which can, in turn, align stakeholders and foster the objectives of the NPA.

General responsibilities of the voluntary boards of advisors include the following:

- Call meetings and establish a meeting protocol. Four meetings per year are recommended for the national and regional boards
- ◆ Select a chair and a vice chair to manage discussions and actions of the board
- ◆ Identify an intermediary to carry out actions of the board
- ◆ Identify and/or include individuals and organizations that should participate on the board
- ◆ Serve as a body of experts for driving a collaborative health equity agenda
- ◆ Refine, through inclusive stakeholder input, priority strategies and actions for the National Plan for Action and the Regional Blueprints for Action, as appropriate and within defined time periods

- ◆ Finalize the national implementation plan that accounts for primary health and healthcare disparities issues, populations most impacted, healthcare assets and capabilities, existing partnerships/coalitions/alliances focused on health disparities, and opportunities for developing new partnerships; in addition, address this plan within regions
- Provide recommendations to the NPA evaluator for completing the national evaluation plan and for developing, as appropriate, additional regional, tribal, or state-level questions, measures and benchmarks
- Support the NPA communications plan by ensuring that stakeholders remain informed about and can participate in national, regional, or local NPA activities
- Serve as a voice on health disparities and health equity matters
- Provide planning support and/or recommendations for regional or national NPA events and initiatives
- Support and collaborate on projects of mutual benefit
- Carry out projects as appropriate

Intermediaries

Intermediaries would be established at the regional, state, tribal, community, and neighborhood/area levels (see Exhibits 4-1 and 4-2) to provide support to the boards. General responsibilities of the intermediaries are:

- Compile and provide general materials to boards that facilitate organized and efficient meetings
- Collaborate with other intermediaries to increase cohesion and viability of board recommendations across levels
- Facilitate partnerships, improve coordination, and/or improve alignment of board efforts with a range of stakeholders including:
 - State and/or Local Offices of Minority Health/Multicultural Health/Health Equity
 - Regional Minority Health Consultants
 - Tribal leaders and organizations

- State legislators working on minority health, health disparities, and health equity
- State and local government agencies with responsibilities for public health, behavioral health, oral health, environmental health, education, housing, transportation, emergency preparedness, justice, and human services
- Health care providers and representatives of health systems and health plans
- Representatives of community and faith-based organizations
- Institutions of higher education
- Researchers focused on health disparities and health equity
- Professional associations
- Foundations and private sector organizations
- Facilitate communications and the flow of information (including the media)
- ◆ Complete NPA reporting requirements

Coordination of state-level efforts will be maximized by working in concert with State Offices of Minority Health (sometimes called State Offices of Multicultural Health, Offices of Health Equity, or Commissions on Minority Health/Health Disparities). These offices perform many important functions, such as coordinating resource acquisition and training relating to racial and ethnic minority health; facilitating access for racial and ethnic minority communities to state programs and resources; providing funding and technical assistance to racial and ethnic minority communities; monitoring activities related to disease prevention, health promotion, service delivery, and research concerning racial and ethnic minority populations; and participating in policy development and decision making regarding minority health. State offices provide an important link to racial and ethnic minority networks that can facilitate and improve the viability of prospective partnerships. In addition, state offices can serve as vehicles for facilitating the reporting of state and regional activities that directly support the National Plan for Action. Exhibit 4-3 provides a general view of the number, distribution, engagement, and funding sources for State Offices of Minority Health.

As a means for ensuring national accountability and reporting progress on the National Plan for Action, the Federal Office of Minority Health will prepare a consolidated Federal Annual Report in collaboration with the Federal Team, the intermediaries, and evaluators. The report will be submitted to the Assistant Secretary for Health, Chair of the Department of Health and Human Services' Health Disparities Council

Exhibit 4-3: State Offices of Minority Health States in Region Engaged in Minority Health/Health Disparities (MH/HD) Activities						
Region of States State	Number of State Offices of	i crociit or otates	Percent of States in Region Evaluating MH/HD Activities	Percent of States in Region that are Receiving State and Federal Funds for MH/HD Activities		
	Minority Health			State	Federal	
1	6	6	100%	100%	66%	t83%
Ш	4	4	50%	75%	50%	100%
Ш	6	5	66%	83%	83%	83%
IV	8	8	87%	87%	87%	100%
V	6	6	100%	100%	100%	83%
VI	5	5	100%	100%	100%	80%
VII	4	4	100%	100%	100%	75%
VIII	6	4	100%	83%	83%	100%
IX ^C	4	4	100%	100%	100%	100%
Х	4	2	25%	50%	50%	75%

Region I (CT, ME, MA, NH, RI, VT); Region II (NJ, NY, PR, VI); Region III (DE, DC, MD, PA, VA, WV); Region IV (AL, FL, GA, KY, MS, NC, SC, TN); Region V (IL, IN, MI, MN, OH, WI); Region VI (AR, LA, NM, OK, TX); Region VII (IA, KS, MO, NE); Region VIII (CO, MT, ND, SD, UT, WY); Region IX (AZ, CA, HI, NV) and Region X (AL, ID, OR, WA).

180 days after the close of the federal fiscal year. The report will be submitted to the Secretary, U.S. Department of Health and Human Services, upon approval of the Council or within 120 days following its receipt.

PARTNERSHIPS

Collaborative and collective teaming of individuals and organizations will be required to achieve the objectives of the National Plan for Action. Each partnership must be aligned to an objective so that it can have the most profound and efficient influence in producing far-reaching and sustained changes. It is important that all partnerships be relationship-based; actively nurtured and managed; purposeful and specific; sustainable; and loyal to the core mission and goal of each contributor. The following discussion links each of the five NPA objectives to the partnership concept:

Excludes states that do not have an established office of minority health/multicultural health/health equity but have another mechanism for addressing Minority Health/Health Disparities. Data provided by state offices of minority health.

Excludes territories.

- 1. AWARENESS: Since community partnerships engage a diverse cross-section of organizations that represent health and human service institutions, nonprofit agencies, government, businesses, educational institutions, community- and faith-based organizations, they reach across populations. By using organizational networks, media outlets, and educational approaches, partnerships have the ability to increase awareness of issues in a profound way.
- 2. **LEADERSHIP**: Leadership is the most often reported internal or organizational factor that helps partnerships create effective systems change. 11 Partnerships demand a delicate balance of leadership that is neither bureaucratic nor autocratic. Collaborative leaders broadly share power to set priorities, allocate resources, and evaluate partnership performance. ¹² A partnership must model collaboration and diversity, create the conditions that make principled leadership possible, and foster the emergence of capable, visionary leaders. Leaders must have community interests at heart and must be able to effectively share their vision for a better, healthier nation.
- 3. HEALTH AND HEALTH SYSTEM EXPERIENCE: When healthcare systems and providers from many disciplines are involved in partnerships, they learn the value and satisfaction of providing their professional expertise and skills within an appropriate context. They can increase their understanding and respect for unique cultural circumstances and can provide useful care, quidance, and instruction as needed. Likewise, by having members of racial and ethnic minority communities represented in a partnership, the health system experience, communication patterns, and education activities can be tailored to better meet the health needs of the targeted community.
- 4. CULTURAL AND LINGUISTIC COMPETENCY: All partner organizations need to help one another communicate effectively with diverse populations that have varying cultural needs, levels of health literacy, or English proficiency.
- 5. RESEARCH AND EVALUATION: The research and evaluation component is central to the success of all partnerships as it determines whether the partnerships and their activities are sustainable over time. Evaluation improves implementation of strategies or identifies better approaches; increases awareness and support; informs policy decisions; and contributes to the scientific understanding of what works. 13 For partners and funders, the bottom line of success depends on whether the partnership achieves its goals and objectives. Systems change does not happen quickly. Participatory and qualitative evaluation methods increase understanding about how and why initiatives work.

Partnerships are embedded in place. However, in order to thrive, they must be dynamic and responsive to culture, racial/ethnic diversity, customs, and to the ways people usually work together in the community, region, or state. Contextual factors or environmental conditions can enhance or inhibit collaboration and significantly impact a partnership throughout its development. 14 Organizations' experiences with partnerships influence whether they come together with "...optimism, serious skepticism, or whether they stay away altogether!" ¹⁵ Many factors contribute to the success of a collaborative effort, as shown below:16

FACTORS FOR SUCCESSFUL COLLABORATION

- Connections or links between individuals, groups, and organizations
- History of working together in a cooperative or competitive way
- Political climate or the history surrounding power and decision making
- Policies, laws, and regulations
- Environmental, in-kind, financial, and human resources
- ◆ Catalysts (existing problems, reasons, or individuals/organizations that initiate collaborations)
- Community motivation, readiness, and awareness of an issue
- ◆ Flexibility and adaptability in problem solving and task accomplishment
- ◆ Trust between community sectors and their ability to reach consensus and cooperation
- ◆ Existing identifiable leadership

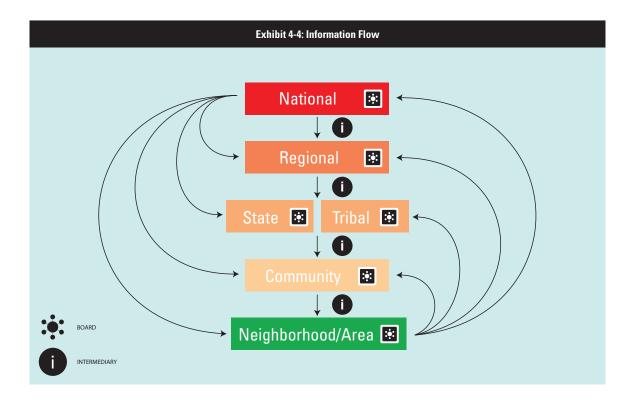
Although they usually arise from altruistic motives, partnerships may nevertheless experience difficulties that are common to many types of organizations, as well as some that are unique to collaborative efforts. The following steps for building effective health disparities partnerships are based on experiences of successful health coalitions:

- 1. Analyze health disparity/health equity issue(s) on which the partnership will focus
- 2. Create awareness of issue(s)
- 3. Convene partnership to conduct initial planning (create vision, mission, and goals)
- 4. Recruit the lead agency and diverse organizational partners
- 5. Develop resources and funding for partnership
- 6. Create partnership infrastructure and procedures
- 7. Elect leadership and identify key staff
- 8. Create a partnership action plan
- 9. Sustain activities by actively engaging partners
- 10. Continuously improve the partnership through evaluation

Partnerships enable capacity building and ensure that interventions are culturally sensitive and effective. By following the steps noted above, partners can build consensus and the active involvement of diverse organizations to address health disparities.

COMMUNICATIONS

The overarching *National Plan for Action* implementation's structure and approach is designed to ensure ongoing communications between and among boards, organizations, and individuals at all levels. The intent is for those involved to share information within their individual networks to broaden diffusion of information and knowledge in a timely manner. To support open and effective communication, the implementation recommendations call for development of a system for effective information exchange. Communications activities, facilitated by intermediaries, as illustrated in Exhibit 4-4, would create dynamic feedback loops for exchanging information about relevant policies, programs, and actions related to health disparities and health equity. Information would flow from and between the national and other levels. In addition, the information exchange system would support sharing knowledge about activities, emerging issues, priorities, and evaluation/best practices from the local levels up to the national level.



Characteristics of the communications and knowledge exchange flows will support development of tools for monitoring the quality and impact of the National Plan for Action's implementation. These activities will also allow for determining, for example: (1) whether and how processes for establishing partnerships and collaborations within and across levels are working; (2) whether and how existing resources and leaders are being leveraged within and across levels; or (3) whether and how board initiatives and achievements within and across levels are consistent with the goals and objectives outlined in the National Plan for Action. Managing and monitoring the communication and information exchange flow will be essential to the translation/application of accomplishments and findings to other context-specific programs and challenges.

As an additional component, a communications plan is being developed to facilitate consistent messaging and outreach and to reduce redundancy in human and financial capital expended by NPA partners on overlapping messages.

SUMMARY

This chapter identified concepts for addressing and managing overall implementation of the National Plan for Action. These concepts—leadership, ownership, partnership, capacity, and communication—are foundational for ensuring engagement and participation of organizations at various levels and across sectors in the implementation process.

This chapter also provides guidance for building effective partnerships and supporting communications as well as providing descriptions of the role of federal agencies, multi-level and cross-sector boards of advisors, and entities that will manage implementation and support a cohesive strategy at each level. Together, the concepts, guidance, and clarification of specific responsibilities provide the key features for an implementation strategy.

The final implementation strategy must carefully consider the outcome of current national health reform proposals, the differing public health environments in each region, and the distribution and management of activities proposed in the Regional Blueprints for Action. It also must incorporate the national evaluation strategy that is developed in response to the evaluation approach outlined in Chapter 5. While steps to promote use of the national strategies and actions of this National Plan for Action should be taken immediately, careful planning and support must be devoted to finalizing the implementation strategy. The change that is envisioned by this plan depends on it.

Notes for Chapter 4

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- ¹¹ Roussos, S., and Fawcett, S., "A Review of Collaborative Partnerships as a Strategy for Improving Community Health," Annual Review of Public Health (2000): 21; 369-402.
- ¹² Weiner, B., Alexander, J., and Shortell, S., "Management and Governance Process in Community Health Coalitions: A Procedural Justice Perspective," Health Education and Behavior (2002): 29(2); 737–754.

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¹⁵ Sofaer, S., Working Together, Moving Ahead (New York City, NY: University of New York, 2001), p. 11.

¹⁶ Mattessich, P, Murray-Close, M., and Monsey, B., Collaboration: What Makes It Work (St. Paul, MN: Fieldstone Alliance, 2001).

Evaluating Progress

STRATEGY AND APPROACH

The NPA includes three major components that are supported by an implementation structure and an evaluation plan. The three components of the NPA include: (1) the National Plan for Action; (2) ten Regional Blueprints for Action that correspond to ten defined geographic regions of the country; and (3) initiatives and partnerships that further the NPA's intent to improve the efficiency and effectiveness of actions to end health disparities.

Although the three NPA components are connected by the same objectives, the evaluation plan must account for actions undertaken within each component as well as the overall contribution of the NPA in closing the persistent health gaps in this country. Adding to these complexities are the various levels of activities that will ensue (e.g., national, regional, tribal, state, local) as well as the additional evaluation efforts required to more fully assess actions within and across levels and sectors. As a result, it is not prudent to construct a complete evaluation plan until critical portions of the NPA's implementation plan are underway. Nevertheless, an evaluation strategy is helpful to illustrate the approach that should be used for evaluating the NPA and to make explicit the principles that will guide the planning and implementation of the evaluation.

The evaluation strategy described in this chapter was developed under the guidance of a group of experts in health disparities research and in the evaluation of initiatives aimed at eliminating such disparities.

OPPORTUNITIES AND CHALLENGES

Several opportunities make evaluation of the NPA possible. First, the NPA evaluation approach will benefit from the growing knowledge on measuring and assessing collaboration, capacity, and systems change; 1.2.3 at the same time, the learning derived from the evaluation also will contribute to the knowledge base. The opportunity for communities to share promising practices and solutions with each other is invaluable. Second, the evaluation will provide an opportunity to monitor and identify the progress and challenges facing the NPA in order to strengthen the initiative and improve the ability at all levels to come up with more effective strategies. Third, the evaluation will generate knowledge that can go beyond this effort and enhance related efforts to strengthen the national agenda to end health disparities.

Several challenges also lie ahead for an evaluation of a national multi-level partnership such as the NPA. First, there is no single evaluation design that can address the complexities of a comprehensive, national effort to end health disparities. As evaluation proponents of comprehensive community change and systems change initiatives have asserted, 4,5 different methodologies will have to be combined (like pieces of a

jigsaw puzzle) to assess change within and across levels (e.g., national, regional, tribal, state) and sectors (e.g., early childhood education, community participatory research, quality of public housing conditions). Second, the NPA evaluation will require the extensive coordination and cooperation of various data sources as well as the capacity building of these sources to collect and report the data according to the format, quality, and schedule required by the national evaluator.

Capacity building to only collect and report data, however, is not sufficient. A supportive strategy for building the capacity of regional, tribal, state, city, county, and neighborhood/area communities to have access to and use data for decision making is also critically needed to enhance the usefulness of the national evaluation for advancing the goal of ending health disparities. This will be a challenging endeavor because it requires changing the norms within some institutions to practice data-driven decision-making and learning from evaluation information, an objective of the NPA.

EVALUATION QUESTIONS

Chapter 3 describes the NPA theory of change that supports the identification of questions about the change process and the types of learning desired from the evaluation. These questions and learning goals, in turn, guide the selection of evaluation methodologies. The initial set of questions that have been identified include:

- 1. Are leaders in the public agencies, and in the private, nonprofit, and community sectors engaged in collaborative, efficient, and equitable working partnerships?
- 2. How many and what types of identifiable actions are being implemented at the local, state, tribal, regional, and national levels?
- 3. To what degree are the Regional Blueprints for Action being implemented?
- 4. How well is the nation progressing toward improved outcomes that address the NPA's goal to end health disparities?
- 5. How much is the work to end health disparities integrated into mainstream systems, including public health?

Additional questions may be added during the completion of the NPA evaluation plan. Further, it is expected that regional, state, tribal, county and city agencies, and community organizations will develop additional questions that specifically fulfill their information needs, as they choose to conduct their own evaluations, independent of the national evaluation. The intent is that programs and initiatives developed by community organizations will include an evaluation component that allows them to measure resulting outcomes and progress, and form a basis for inspiring solutions in other communities.

EVALUATION METHODOLOGIES

There are several possible methodologies for evaluating the NPA and as previously mentioned, some of the methodologies may have to be combined to ensure a comprehensive evaluation that captures the complexity of the NPA. This section describes some of the possibilities; additional methodologies will be explored as the implementation of the NPA advances.

The first option is a *cross-case study* design (sometimes referred to as a multiple-case study methodology), ⁶ a widely accepted methodology that uses qualitative and quantitative data for studying change initiatives that are easily affected by events out of participants' control or perhaps implemented differently, but may share common characteristics that contribute to the desired outcomes. The cross-case study methodology has long been widely used in social science research and program evaluation.^{7,8} According to Yin, it has been a preferred method among federal agencies because of its strengths in exploring "who," "what," "why," and "how" guestions about a contemporary phenomenon within a real-life context. The cross-case study methodology also can be useful in complementing another methodology to test a theory and especially to uncover contextual conditions that influence a phenomenon. 10,11

A cross-case methodology uses case studies to make generalizations by determining if similar results are consistently predicted or if similar reasons for the results or outcomes, even if contrasting, are predictable. 12 These attributes have made the cross-case study methodology an ideal approach for studying change initiatives that are easily impacted by events out of the participants' and evaluators' control or perhaps implemented differently, but may share common characteristics that contribute to desired outcomes.

For instance, the cross-case study methodology can be used to evaluate the outcomes of the strategies using different combinations of action steps and the capacities, resources, and relations that enabled agencies and organizations in communities and states within a defined region to implement these strategies. Both quantitative (e.g., changes in use of emergency room services) and qualitative (e.g., types of relationships and resources leveraged) data can be collected and shared. Each state constitutes a case, and a cross-case analysis of all the states in the region provides a snapshot of the progress in that region. Each region also can, in turn, constitute a case, and similarly, a cross-case analysis of multiple regions provides a snapshot of the progress in that part of the nation. Cross-case study methodology could also be used to investigate selected local efforts from across the country representing different approaches or types of communities.

The next option is the benchmarking methodology, which identifies, shares, and uses best practices to improve any given action. 13 Two concepts are key in benchmarking—the effort to identify actions and performance that are outstanding and to transfer these best actions and performance to an organization's standards and processes. 14 Benchmarking focuses on the action steps and not strategies, and, therefore, it would be part of a larger evaluation rather than a stand-alone methodology.

The benchmarking methodology, for example, could be applied to the area of patient care environment. A group of hospitals in a particular state could evaluate themselves on several indicators of the care environment (e.g., cleanliness and infection control) and determine who, among them, have the best actions for ensuring a high quality care environment. Hospitals in other states could compare themselves to them and adopt any actions that might improve their care environment. At the same time, they could add themselves to the benchmarking database. This methodology could support the national evaluation while building the infrastructure for knowledge exchange.

The third option is *longitudinal effectiveness* which would examine the degree to which the predictors (e.g. social determinants) were associated with the anticipated outcomes (e.g. reduction in health disparities) and the extent to which the NPA contributed to the changes.

MEASURES OF CHANGE

The NPA theory of change is also useful for determining the domains for the core set of measures that will be important to collect for the national evaluation. The important first step for identifying these measures is to create common health disparities definitions and terminology to ensure uniformity at all levels and across all sectors. Once the definitions and terminology have been agreed upon, then a core set of measures can be established.

Core measures should meet the ARC criteria that were developed by the NPA evaluation team (see below). Measures used in the national evaluation of the NPA should be:

- 1. Available for all racial and ethnic, socioeconomic, gender, and any other important groups.
- 2. Replicable at all levels of analysis (i.e., nation, region, state, tribal, local) and across sectors (e.g., health, education, housing).
- 3. Collectable across key differences, such as geographic location (e.g., rural and urban areas).

The types of measures essential for the NPA evaluation include predictor, process, outcome, and performance measures.

PREDICTOR MEASURES: Examples of predictor measures are the social determinants of health, such as education, income, access to transportation and other services, social stressors, and the environment. These factors have repeatedly been found to be associated with a wide range of chronic diseases. Also, these factors work either directly to affect a person's health conditions, or indirectly, by influencing the

person's health behaviors. The NPA, based on information gathered during the Regional Conversations and other meetings, included actions that attempt to reduce the impact of the social determinants mentioned above. As such, predictor measures must be part of the NPA evaluation to determine the degree to which the actions might have helped reduce health disparities.

PROCESS MEASURES: The NPA uses the concept of collaboration to increase capacity and leverage resources and relations in order to address the myriad factors that contribute to the health disparities in the United States. The evaluation will, therefore, examine process measures such as partnership development, quality of collaboration, and implementation of the Regional Blueprints through the actions identified.

OUTCOME MEASURES: The NPA evaluation will examine three types of outcomes: short-term, intermediate, and long-term. Examples of short-term outcome measures are organizational and community capacity, leadership and public will to end health disparities, resources for the elimination of such disparities, and goal attainment. Intermediate outcome measures are the systems and policy changes that support ending health disparities, while long-term outcome measures are the conditions for which disparities exist. These measures can, in turn, be categorized into three major types: health conditions (e.g., prevalence of diabetes or cardiovascular disease); health care access and utilization (e.g., screenings, use of a medical home); and health care quality and workforce (e.g., patient safety, patient-provider ratio, timeliness of care, and patient and provider interactions).

DATA ANALYSES

Data on the predictor, process, and outcome measures can be analyzed in different ways to yield the best explanation for the NPA's contributions to ending health disparities. These different forms of analyses strategies also can be combined to provide a more thorough picture of the nation's state of health disparities. The analysis recommended in this chapter reflects two basic approaches: measuring of progress toward ending disparities (i.e., closing the gap) and determining the progression of contributing strategies and other factors reflected in the theory of change towards closing that gap. Some potential analyses strategies include, but are not limited to, the following examples:

DEVELOPMENT AND USE OF A HEALTH EQUITY SCORE CARD OR INDEX: In developing such a score card or index, several measures are combined and analyzed to determine how well a local community, state, tribal nation, or region is progressing in its efforts to end health disparities. Such a score card or index could potentially be developed for each state and within each state, major cities and counties, and compared over time. Examples of this sort of analysis to date include the National Scorecard on U.S. Health System Performance, the Healthy Equity Score Card for South Los Angeles, and an effort underway by the Connecticut Association for Directors of Health to create an index for its state.

POLICY ANALYSIS: In such analysis, the policies that have been proposed and passed (or not) that are related to health disparities, and the extent to which these policies benefit or harm a particular group of people, are examined.

CROSS-SECTIONAL ANALYSIS: This type of analysis can be conducted on a particular set of short-term outcomes for a group of people during a particular point in time. It yields a more immediate understanding of the progress made by the NPA.

LONGITUDINAL ANALYSIS: Outcomes, such as prevalence of certain diseases, should be examined over a longer period of time to detect any changes. These outcomes can be monitored at the state, tribal, and regional levels, and comparisons can be made.

COLLABORATION AND CAPACITY BUILDING

The ability to tell the NPA story will depend, in part, on the capacity and collaboration of organizations and governments at the regional, state, tribal, city and county, and/or community levels to participate in and support the national evaluation.

COMMUNITY ENGAGEMENT: In order to leverage the cooperation and collaboration of the above entities, the NPA evaluation must include methods for engaging communities throughout the evaluation process. These methods are especially critical for certain community groups that have historically been marginalized or harmed by research and evaluation (e.g., Native Americans, African Americans, people with disabilities) and, therefore, distrust researchers and evaluators. The national evaluation can include different methods for community engagement, such as the use of community advisory boards.

DATA INFRASTRUCTURE: The NPA evaluation will have to rely, in part, on the capacity of entities at the regional, tribal, state, city and county, and neighborhood/area levels to collect, access, and report the data required for the national evaluation. The NPA evaluation will conduct an inventory of existing national, state, and tribal data systems to avoid duplication of efforts and, in the case of tribal nations, to also ensure that their regulations for data sharing are respected. Investments will need to be made to develop a data infrastructure where there is none or to enhance existing ones, as well as to provide the capacity to implement them.

TRANSLATION, DISSEMINATION, AND USE OF FINDINGS: Building the capacity of organizations and governments to collect and report data is not sufficient. Strategies also have to be developed to build their capacity to use the findings generated by the national NPA evaluation to inform their actions and decisions on an ongoing basis (also part of the NPA's objectives). The NPA evaluation will include strategies for translating and disseminating its findings in formats that are accessible to community groups, organizations, and policymakers, and provide guidance on how to use the findings. The national evaluator will distribute the findings through print and broadcast media (including ethnic media) and use different forms of technology to communicate the findings (e.g., pod cast, written papers, and presentations). Additionally, national, regional, and state-wide conferences on health disparities could provide a venue for trainings on how to use the national evaluation's findings to inform local actions and decisions.

IMPLEMENTATION

This chapter described the overall strategy and key considerations necessary for an effective and appropriate national evaluation of the NPA. There are nine specific steps that should be taken in order to prepare for the implementation of the evaluation:

- Establish a technical advisory group of diverse experts in evaluation and health disparities.
- Establish a partnership advisory group for the evaluation that consists of representatives from the NPA's national partners and from selected regional, state, tribal, city and county, and community levels to guide the collaboration for evaluation.
- Review the NPA change (logic) model with national partners, the technical advisory group, and the partnership advisory group for evaluation to make refinements as necessary to the overall change process and results expected from the NPA.
- Complete an agreed upon set of evaluation questions based on decision making and learning needs.
- Complete benchmarks and establish well informed levels of expected changes.
- Ensure the NPA change model, questions, and benchmarks are aligned.
- Develop a measurement framework, based on the NPA change model, which would identify indicators, measures, and data sources for each component of the model.
- ◆ Complete the NPA national evaluation design.

- Establish a web-based partnership monitoring system which would include data on regional, tribal, state, and local partnerships' composition, structure, and functions; support system for the NPA; increased capacity and effective leveraging of resources and relations; and strategy implementation, including identifying best practices and feedback on the NPA's performance.
- Develop a support system to strengthen national evaluation capacity and overall use of data for decision making and capacity building for regional, tribal, state, and local partnerships. This system could include peer learning/social networks, dissemination of resources, technical assistance, educational and training programs, consultation, the identification and sharing of best practices, and other support needed to help partnerships effectively participate in the NPA national evaluation.

Notes for Chapter 5

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- ² B. Garland, M. Crane, C. Mariano, B. Stone-Wiggins, A. Ward, and G. Friedell, "Effect of Community Coalition Structure and Preparation on the Subsequent Implementation of Cancer Control Activities," American Journal of Health Promotion 18, no. 5 (2004): 424-434.
- ³ S. T. Roussos and S. B. Fawcett, "A Review of Collaborative Partnerships as a Strategy for Improving Community Health," Annual Review of Public Health 21 (2000): 369-204.
- ⁴ Association for the Study and Development of Community, Principles for Evaluating Comprehensive Community Initiatives (Gaithersburg, MD, 2001).
- ⁵ F. Schweigert, "The Meaning of Effectiveness in Assessing Community Initiatives," American Journal of Evaluation 27, no. 4 (2006): 416-436.
- ⁶ R. K.Yin, Case Study Research, 2nd Edition (Thousand Oaks, CA: Sage Publications, 1994).
- ⁷R. Stake, The Art of Case Study Research (Thousand Oaks, CA: Sage Publications, 1995).
- ⁸ R. K.Yin, Case Study Research.
- ⁹ Ibid.
- ¹⁰ R. Stake, The Art of Case Study Research.
- ¹¹ R. K.Yin, Case Study Research.
- 12 Ibid.
- ¹³ M. Spendolini, The Benchmarking Book (New York: American Management Society/AMACOM Publishing, 1992).
- ¹⁴ T. Brueck, R. Riddle, and L. Paralez, Consortium Benchmarking Methodology Guide (Denver, CO: AWWA Research Foundation, 2003).

ADDITIONAL EXHIBITS

Demographic Exhibits

	Exhibit A-1: United States Population Estimates, 2008 Population numbers and percentage of total									
Cotomorios	D. D	By Race and Ethnicity								
Categories	By Race	Not Hispanic	Hispanic							
White	242,639,242	199,491,458	43,147,784							
	(79.80%)	(77.59%)	(91.91%)							
Black	39,058,834	37,171,750	1,887,084							
	(12.85%)	(14.46%)	(4.02%)							
AI/AN	3,083,434	2,328,982	754,452							
	(1.01%)	(0.91%)	(1.61%)							
Asian	13,549,064	13,237,698	311,366							
	(4.46%)	(5.15%)	(0.66%)							
NHOPI	562,121	434,561	127,560							
	(0.18%)	(0.17%)	(0.27%)							
Two or more races	5,167,029	4,451,662	715,367							
	(1.70%)	(1.73%)	(1.52%)							
Total	304,059,724	257,116,111	46,943,613							
	(100%)	(100%) ^a	(100%) ^a							

Source: U.S. Census Bureau, Factfinder, Datasets, Annual Population Estimates, 2008 Population estimates, detailed Tables T3-2008 and T4-2008, United States.

Percentages may not sum to 100% due to rounding effects.

AI/AN=American Indian/Alaska Native; NHOPI=Native Hawaiian and Other Pacific Islander.

a Non-Hispanics and Hispanics are 84.6 percent and 15.4 percent,

respectively, of the total U.S. population (304,059,724).

http://factfinder.census.gov/servlet/DTTable?_bm=y&-context=dt&-ds_name=PEP_2008_EST&-CONTEXT=dt&-mt_name=PEP_2008_EST_G2008_T003_2008&-mt_name=PEP_2008_EST_G2008_T004_2008&-tree_id=808&-redoLog=false&-all_geo_types=N&-_caller=geoselect&-geo_id=01000US&-search_results=01000US&-format=&-_lang=en

Exhibit A	\-2: United States Populatio	n Density, 2008
Region	Persons per square mile	Number of persons
Northeast	339	54,924,779
Midwest	89	66,561,448
South	129	111,718,549
West	40	70,854,948
United States	86	304,059,724

Data from U.S. Census Bureau, American FactFinder, Population Finder, Map of Persons per square mile, 2008, Map TM-M2, by region. Geographical areas are U.S. Census designations.

http://factfinder.census.gov/servlet/ThematicMapFramesetServlet?_bm=y& -geo_id=01000US&-tm_name=PEP_2008_EST_M00090&-ds_name=PEP_2008_EST&-_MapEvent=displayBy&-_dBy=040&-

_lang=en&-_sse=on#?516,171

Demographics Exhibits (continued)

	Exhibit A-3: United States Urban/Rural Distribution, 2000 Population numbers and percentage of total population									
Geographic Location	Geographic Location U.S. Northeast Midwest South West									
Urban	222,360,539 (79.0%)	45,226,003 (84.4%)	48,104,672 (74.7%)	73,007,539 (72.8%)	56,022,325 (88.6%)					
Inside urbanized areas	192,323,824	41,852,286	39,236,151	61,520,201	49,715,186					
Inside urban clusters b	30,036,715	3,373,717	8,868,521	11,487,338	6,307,139					
Rural	59,061,367 (21.0%)	8,368,375 16,288,104 (15.6%) (25.3%)		27,229,281 (27.2%)	7,175,607 (11.4%)					
Total	281,421,906	53,594,378	64,392,776	100,236,820	63,197,932					

Source: U.S. Census Bureau, American FactFinder, Datasets, Decennial Census, Census 2000 Summary File 1, Detailed Tables P2, Urban and rural, United States and regions. Geographical areas are U.S. Census designations.

 $http://factfinder.census.gov/servlet/DTTable?_bm=y\&-context=dt\&-ds_name=DEC_2000_SF1_U\&-mt_name=DEC_2000_SF1_U_P002\&-CONTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt\&-ds_name=DEC_2000_SF1_U_P002\&-coNTEXT=dt_ds_name=DEC_2000_SF1_U_P002_SF1_U_P0$ $tree_id=4001\&-all_geo_types=N\&-currentselections=DEC_2000_SF1_U_P002\&-geo_id=01000US\&-geo_id=02000US1\&-geo_id=02000US2\&-geo_id=02000US1\&-geo_id=02000US2\&-geo_id=02000US1\&-geo_id=02000US2\&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo_id=02000US1&-geo$ $geo_id=02000US3\&-geo_id=02000US4\&-search_results=01000US\&-format=\&-_lang=en$

	Exhibit A-4: U.S. Foreign	-Born Population, 2005–2007	
	Total Population	Foreign-Born Population ^a	Percent Foreign Born
United States	298,757,310	37,234,785	12.5%
Region I	14,240,298	1,623,752	11.4%
Region II ^b	31,877,206	5,982,290	18.8%
Region III	28,882,189	2,247,032	7.8%
Region IV	58,318,548	5,529,395	9.5%
Region V	51,369,103	3,605,095	7.0%
Region VI	36,054,522	4,299,525	11.9%
Region VII	13,328,668	578,377	4.3%
Region VIII	10,230,596	751,687	7.3%
Region IX ^C	46,182,093	11,467,310	24.8%
Region X	12,200,725	1,263,985	10.4%

Source: U.S. Census Bureau, FactFinder, Fact Sheet by state, 2005-2007 American Community Survey: Demographic estimates and social characteristics. Regional data compiled from NPA Regional Blueprints Exhibits.

 $http://factfinder.census.gov/servlet/ACSSAFFFacts?_submenuld=factsheet_0\&_sse=on$

An area of at least 1,000 people per square mile having a minimum residential population of at least 50,000 people.

A densely settled territory that has at least 2,500 people but fewer than 50,000.

Individuals who were born in a country other than the United States or U.S. territories.

Excludes Virgin Islands (data not available).

Excludes territories.

Demographics Exhibits (continued)

	Exhibit A-5: Country of Origin for U.S. Foreign-Born ^a Population, 2005–2007 Percentage of the total foreign-born population									
	Europe	Asia	Africa	Oceania	Latin America	Northern America				
United States	13.4	26.7	3.7	0.5	53.4	2.3				
Region I	28.3	24.2	6.6	0.3	34.8	5.5				
Region II ^b	19.6	26.3	3.7	0.2	48.9	1.3				
Region III	17.5	35.7	10.7	10.7 0.4 33.8		2.0				
Region IV	12.1	15.2	3.5	0.3	65.7	3.2				
Region V	23.2	30.6	5.3	0.3	37.6	a3.0				
Region VI	5.2	17.1	2.8	0.2	73.4	1.25				
Region VII	16.9	29.9	5.9	0.7	44.2	2.5				
Region VIII ^C	14.6	19.4	3.7	1.6	56.6	4.1				
Region IX	7.2	32.7	1.5	0.8	56.2	1.6				
Region X	17.4	34.2	3.6	1.5	37.7	5.7				

Source: U.S. Census Bureau, FactFinder, Fact Sheet by state, 2005-2007 American Community Survey: Social characteristics, world region of birth of foreign born. Regional data compiled from NPA Regional Blueprints Exhibits.

 $http://factfinder.census.gov/servlet/ACSSAFFFacts?_submenuld=factsheet_0\&_sse=on$

a Individuals who were born in a country other than the United States or U.S. territories. Excludes Virgin Islands (data not available).

Excludes territories.

Health Disparities Exhibits

	Exhibit A-6: Heart Attack, United States and Territories, 2008 Persons who have been told they have had a heart attack (myocardial infarction)									
Race	/Ethnicity	Educ	ation	Inco	ome					
Category	Percent ^a	Category	Percent ^a	Category	Percent ^a					
All	4.2	AII	4.2	All	4.2					
White	4.5	Less than H.S.	8.5	Less than \$15,000	8.6					
Black	3.9	H.S. or G.E.D.	5.0	\$15,000 \$24,999	7.0					
Hispanic	3.0	Some post-H.S.	3.7	\$25,000 \$34,999	5.4					
Other	4.0	College graduate	2.8	\$35,000 \$49,999	4.0					
Multiracial	5.9			More than \$50,000	2.3					

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Cardiovascular Disease.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=CV&yr=2008&qkey=5001&state=US

	Exhibit A-7: Stroke, United States and Territories, 2008								
	Persons who have ever been told they have had a stroke								
Race/E	Race/Ethnicity Education Income								
Category	Percent	Category	Percent ^a						
All	2.6	AII	2.6	AII	2.6				
White	2.6	Less than H.S.	5.1	Less than \$15,000	7.0				
Black	4.0	H.S. or G.E.D.	3.3	\$15,000 \$24,999	4.5				
Hispanic	1.8	Some post-H.S.	2.4	\$25,000 \$34,999	3.2				
Other	2.2	College graduate	1.5	\$35,000 \$49,999	2.2				
Multiracial	3.4			More than \$50,000	1.1				

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS) Prevalence and Trends Data 2008, Cardiovascular Disease.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=CV&yr=2008&qkey=5021&state=US

d Median values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

^d Median values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

Health Disparities Exhibits (continued)

	Exhibit A-8: Diabetes, United States and Territories, 2008								
	Persons who have ever been told by a doctor that they have diabetes								
Rac	e/Ethnicity	Educ	cation	Inc	ome				
Category	Percent	Category	Percent ^a	Category	Percent				
All	8.3	AII	8.3	All	8.3				
White	7.4	Less than H.S.	13.4	Less than \$15,000	15.1				
Black	13.1	H.S. or G.E.D.	9.5	\$15,000 \$24,999	12.2				
Hispanic	7.5	Some post-H.S.	8.7	\$25,000 \$34,999	10.2				
Other	8.3	College graduate	5.8	\$35,000 \$49,999	8.4				
Multiracial	9.2			More than \$50,000	5.5				

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Diabetes.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=DB&yr=2008&qkey=1363&state=US

	Exhibit A-9: Asthma, United States and Territories, 2008								
	Adults who have ever been told that they have asthma								
Race/E	Race/Ethnicity Education Income								
Category	Percent	Category	Percent	Category	Percent				
All	13.6	All	13.6	All	13.6				
White	13.3	Less than H.S.	15.8	Less than \$15,000	19.2				
Black	15.2	H.S. or G.E.D.	13.2	\$15,000 \$24,999	15.1				
Hispanic	11.4	Some post-H.S.	14.5	\$25,000 \$34,999	13.0				
Other	11.6	College graduate	12.1	\$35,000 \$49,999	12.6				
Multiracial	14.7			More than \$50,000	12.4				

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Asthma.

http://apps.nccd.cdc.gov/brfss/display.asp?cat=AS&yr=2008&qkey=4417&state=US

^aMedian values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

^d Median values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma.

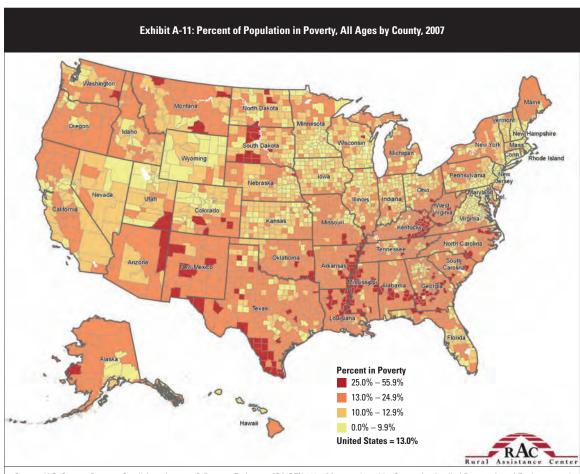
Health Disparities Exhibits (continued)

	Exhibit A-10: Dental Health Care, United States and Territories, 2008								
	Persons who have N	OT visited the dentist or d	ental clinic within the pa	st year for any reason					
Race/E	thnicity	Educ	ation	Inco	ome				
Category	Percent ^a	Category	Percent ^a	Category	Percent ^a				
All	28.8	All	28.8	All	28.8				
White	26.5	Less than H.S.	50.8	Less than \$15,000	52.3				
Black	38.1	H.S. or G.E.D.	35.7	\$15,000 \$24,999	46.1				
Hispanic	38.9	Some post-H.S.	29.3	\$25,000 \$34,999	38.4				
Other	30.0	College graduate	18.0	\$35,000 \$49,999	29.9				
Multiracial	31.1			More than \$50,000	18.1				

Source: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), Prevalence and Trends Data 2008, Oral Health.

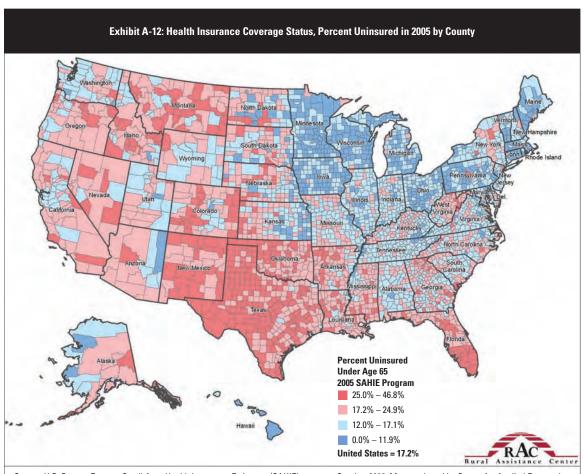
Median values. Data from 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (data from subgroups may not include all entities). H.S.=high school. G.E.D.=General Equivalency Diploma. http://apps.nccd.cdc.gov/brfss/display.asp?cat=0H&yr=2008&qkey=6610&state=US

Social Determinants of Health Exhibit



Source: U.S. Census Bureau, Small Area Income & Poverty Estimates (SAIPE), 2007. Map produced by Center for Applied Research and Environmental Systems (CARES); February, 2009.

Healthcare Costs and Coverage Exhibits



Source: U.S. Census Bureau, Small Area Health Insurance Estimates (SAHIE) program, October 2006. Map produced by Center for Applied Research and Environmental Systems (CARES); November, 2008.

Federal Resources Exhibits

	Exhibit A-13: United States Funding from HRSA Grants, FY2008 Dollars awarded (millions)									
HRSA Key Program					Reç	jion				
Thoa key Flogram	I	II	III	IV	V	VI	VII	VII	IX	Х
Health Facilities	14.38	19.63	36.09	56.87	29.71	27.96	19.13	12.37	22.25	9.64
Health Professions	19.02	38.99	31.81	73.33	39.88	31.16	13.98	14.68	35.02	16.03
Healthcare Systems	1.21	2.66	2.24	4.26	5.03	2.62	1.08	1.04	3.50	0.82
HIV/AIDS	174.04	480.07	409.13	448.94	182.64	221.02	40.09	34.85	298.42	88.08
Maternal/Child Health	51.08	88.55	109.73	148.36	139.88	89.18	41.90	37.91	77.80	29.96
Health Information Technology	7.14	6.71	5.78	7.46	9.27	3.77	1.35	6.22	8.39	4.23
Primary Health Care	113.12	184.50	164.94	378.12	237.12	219.70	77.37	104.82	274.42	143.01
Rural Health	5.50	2.10	8.82	42.88	16.24	12.62	10.22	13.18	5.55	11.44
Tele-Health	0.62	0	0.53	0.41	1.37	0.51	0.56	1.10	0.64	0.50
Total	386.11	823.21	769.07	1160.63	661.14	608.54	205.68	226.17	725.99	303.71

Source: Health Resources and Services Administration (HRSA), Geospatial Data Warehouse, Report Tools, State Profiles. Regional data compiled from NPA Regional Blueprints Exhibits, April to August, 2009 (data are updated frequently).

Numbers rounded to the nearest ten thousand dollars. Totals may not sum exactly due to rounding effects. Includes both discretionary and formula

http://datawarehouse.hrsa.gov/customizereports.aspx

Exhibit A-14: United States Funding from SAMHSA Grants, FY2008/2009 Dollars awarded (millions)										
Tongs of Funding					Reç	jion				
Types of Funding	ı	II	III	IV	V	VI	VII	VII	IX	Х
Formula	99.17	235.51	200.50	384.30	352.82	257.82	78.59	77.99	382.78	82.12
Discretionary	92.66	61.95	63.93	104.68	109.48	122.39	45.65	54.71	109.30	50.65
Total	191.83	297.46	264.43	489.00	462.29	380.22	124.23	132.71	492.07	132.76

Source: Substance Abuse and Mental Health Services Administration (SAMHSA). Regional data compiled from NPA Regional Blueprints Exhibits. The funds listed for the formula grants are the amounts provided to the states in FY2009. The amounts for discretionary grants are those awarded at the close of FY2008. Discretionary grants with FY2009 dollars, when appropriated, are made throughout the fiscal year. Numbers rounded to the nearest ten thousand dollars. Totals may not sum exactly due to rounding effects.

http://www.samhsa.gov/Statesummaries/index.aspx

Federal Resource Exhibits (continued)

Exhibit A-15: Total CDC Extramural Funding, FY2008				
Funding	Dollars awarded (millions)	Percentage of total dollars awarded		
Non-Vaccine Awards	3,768.83	59.2		
Vaccine Support	2,599.75	40.8		
Total CDC extramural funding	6,368.58	100		
Total number of CDC extramural projects funded	number of CDC extramural projects funded 3,547			
Source: Centers for Disease Control and Prevention (CDC) 2008 CDC Portfolio Assessment Summary United States				

Source: Centers for Disease Control and Prevention (CDC), 2008 CDC Portfolio Assessment Summary, United States. Dollars rounded to the nearest ten thousand dollars.

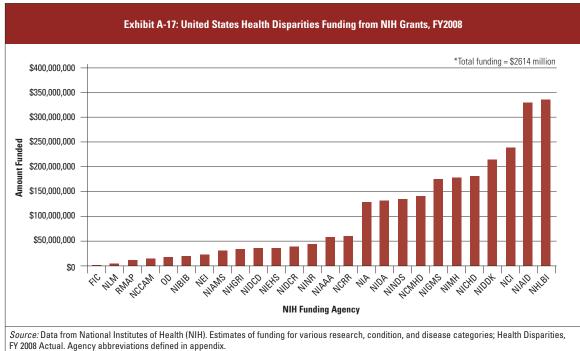
Exhibit A-16: United States CDC Funding by Sector, FY2008 Excludes Vaccine Support					
Recipient Sector	Number of grants/cooperative agreements	Dollars awarded (millions)	Percentage of U.S. awards		
State Health Department	1,520	2,044.34	54.2		
Local City/County Health Department	139	252.67	6.7		
Department of Education	87	31.10	0.8		
CBO/NGO	346	148.07	3.9		
Academic Institutions	788	674.77	17.9		
Associations/Institutes/Foundations	541	570.83	15.1		
Hospitals	49	18.76	0.5		
Police and Fire	3	6.46	0.2		
Fiscal Agent	16	4.73	0.1		
Tribal Organizations	58	16.65	0.4		
Totals	3,547	3,768.38	100		

Source: Centers for Disease Control and Prevention (CDC); 2008 CDC Portfolio Assessment Summary, United States.

Dollars rounded to the nearest ten thousand dollars. Sums subject to rounding effects.

CBO=community-based organization; NGO=non-governmental organization.

Federal Resource Exhibits (continued)



FY 2008 Actual. Agency abbreviations defined in appendix.

http://report.nih.gov/rcdc/categories/#legend7

Private Resources Exhibits

Exhibit A-18: United States Foundation Grants by Subject Categories, 2007				
Subject	Dollar value of grants		Number of grants	
	Amount	Percent	Number	Percent
Health	4,910,707	22.7	19,690	13.1
Human services	3,232,565	14.9	39,051	26.0
Education	4,944,387	22.8	30,099	20.0
Public affairs/society benefit	2,358,153	10.9	17,158	11.4
Science and technology	635,710	2.9	2,765	1.8
Arts and culture	2,293,719	10.6	21,527	14.3
Environment and animals	1,471,804	6.8	9,884	6.6
International affairs, development, peace, and human rights	975,900	4.5	3,566	2.4
Social sciences	295,445	1.4	1,325	0.9
Religion	452,925	2.1	5,210	3.5
Other	78,593	0.4	117	0.1
Total Grants	\$21,649,909	100	150,392	100.1

Source: The Foundation Center, 2009. http://foundationcenter.org Copyright © 2009, The Foundation Center. All rights reserved.

Table headings here modified slightly from original table.

Due to rounding, figures may not add up.

Based on all grants of \$10,000 or more awarded by a national sample of 1,339 larger U.S. foundations (including 800 of the 1,000 largest ranked by total giving). For community foundations, only discretionary grants are included. Grants to individuals are not included in the exhibit. http://foundationcenter.org/findfunders/statistics/gs_subject.html

Private Resources Exhibits (continued)

Exhibit A-19: United States Foundation Grants for Special Populations, 2007					
Population Group	Dollar value of grants		Number of grants		
	Amount	Percent	Number	Percent	
Aging/elderly/senior citizens	310,962	1.4	3,235	2.2	
Children and youth	3,565,169	16.5	35,272	23.5	
Crime or abuse victims	213,079	1.0	3,358	2.2	
Economically disadvantaged	5,254,351	24.3	31,358	20.9	
Poor, indigent	5,009,413	23.1	27,602	18.4	
Homeless	229,046	1.1	3,566	2.4	
Migrant workers	15,892	0.1	190	0.1	
Ethnic or racial minorities	1,513,522	6.9	14,852	10.1	
General	746,594	3.4	7,328	4.9	
API	67,007	0.3	863	0.6	
Blacks	299,332	1.4	2,796	1.9	
Hispanics	226,119	1.0	2,501	1.7	
Native Americans/American Indians	92,995	0.4	831	0.6	
Indigenous peoples	41,447	0.2	241	0.2	
Other minorities	40,027	0.2	292	0.2	
Gays or lesbians	41,169	0.2	687	0.5	
Immigrants and refugees	207,106	1.0	2,341	1.6	
Men and boys	302,934	1.4	3,297	2.2	
Military and veterans	65,439	0.3	544	0.4	
Offenders and ex-offenders	131,238	0.6	1,200	0.8	
People with AIDS	482,398	2.2	1,297	0.9	
People with disabilities	579,241	2.7	7,896	5.3	
People with terminal illness	33,885	0.2	581	0.4	
Single parents	20,903	0.1	261	0.2	
Substance abusers	128,713	0.6	1,262	0.8	
Women and girls	1,253,260	5.8	9,762	6.5	
Not specified/general public	12,611,313	58.3	79,521	52.9	

Source: The Foundation Center, 2009. http://foundationcenter.org Copyright © 2009, The Foundation Center. All rights reserved. Table headings here modified slightly from original table.

Due to rounding, figures may not add up. API=Asian/Pacific Islanders.

Based on all grants of \$10,000 or more awarded by a national sample of 1,339 larger U.S. foundations (including 800 of the 1,000 largest ranked by total giving). For community foundations, only discretionary grants are included. Grants to individuals are not included in the file. Figures represent only grants awarded to groups that could be identified as serving specific populations or grants whose descriptions specified a benefit for a specific population. These figures do not reflect all giving benefiting these groups. In addition, grants may benefit multiple population groups, e.g., a grant for economically disadvantaged youth, and would therefore be counted more than once.

http://foundationcenter.org/findfunders/statistics/gs_pop.html

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AAHC—Accreditation Association for Ambulatory Health Care

AAHC—Accreditation of Ambulatory Health Care

AAMC—Association of American Medical Colleges

ACS—American Community Survey

AGID—AGing Integrated Database

A-HeFT—African-American Heart Failure Trial

AHRQ—Agency for Healthcare Research and Quality

AI/AN—American Indian and Alaska Native

ALLHAT—Antihypertensive and Lipid Lowering Treatment to Prevent Heart Attack Trial

AoA—Administration on Aging

APHA—American Public Health Association

API—Asian/Pacific Islander

AS—American Samoa

ASPH—Association of Schools of Public Health

ASTHO—Association of State and Territorial Health Officials

BLS—Bureau of Labor Statistics

BMI—Body Mass Index

BRFSS—Behavioral Risk Factor Surveillance System

CBPR—Community-Based Participatory Research

CDC—Centers for Disease Control and Prevention Census U. S. Census Bureau

CLAS—Culturally and Linguistically Appropriate Services

CNMI—Commonwealth of the Northern Mariana Islands

CSDH—Commission on Social Determinants of Health

EMR—Electronic Medical Record

EPA—U.S. Environmental Protection Agency

EPSDT—Early and Periodic Screening, Diagnostic, and Treatment

FAS—Freely Associated States (Federated States of Micronesia, Republic of the Marshall Islands, Republic of Palau)

FIMT—Federal Interagency Management Team of the

NPAFSM—Federated States of Micronesia

GED—General Equivalency Diploma (high school equivalency)

HDI—Health Data Interactive

HE—Health Equity

Heckler Report—1985 Report of the Secretary's Task Force on Black and Minority Health

HHS-U.S. Department of Health and Human Services

HIT—Health Information Technology

HPSA—Health Professional Shortage Areas

HRSA—Health Resources and Services Administration

HS—High School

HUD—U.S. Department of Housing and Urban Development

IHS—Indian Health Service

IOM—Institute of Medicine

JCAHO—Joint Commission on the Accreditation of Healthcare Organizations

LEP—Limited English Proficiency

MDE—Major Depressive Episode

MEPS—Medical Expenditure Panel Survey

MH/HD—Minority Health/Health disparities

Midwest Region—Includes: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota,

Missouri, Nebraska, North Dakota, and South Dakota

MUA—Medically Underserved Areas

MUP—Medically Underserved Populations

NACCHO—National Association of City and County Health Officials

NACDA—National Archive of Computerized Data on Aging

NASOMH—National Association of State Offices of Minority Health

NBER—National Bureau of Economic Research

NBGH—National Business Group on Health

NCCC—National Center for Cultural Competence

NCES—National Center for Education Statistics

NCHS—National Center for Health Statistics

NCIHC—National Council on Interpreting in Health Care

NCQA—National Committee for Quality Assurance

NH—Non-Hispanic

NHANES—National Health and Nutrition Examination Survey

NHDR—National Healthcare Disparities Report

NHIS—National Health Interview Survey

NHOPI—Native Hawaiian and Pacific Islander

NHQR—National Healthcare Quality Report

NHSC—National Health Service Corps

NIH—National Institutes of Health

NIOSH—National Institute for Occupational and Safety and Health

NORCs—Naturally Occurring Retirement Communities

Northeast Region—Includes: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania

NPA—National Partnership for Action to End Health Disparities

NQF—National Quality Forum

NSCH—National Survey of Children's Health

NSCSHCN—National Survey of Children with Special Health Care Needs

NSDUH—National Survey on Drug Use & Health

NVP—National Visionary Panel

NVSS—National Vital Statistics System

OHP—Office of Housing Programs (HUD)

OMH—Federal Office of Minority Health

PedNSS—Pediatric Nutrition Surveillance System

PHA—Public Housing Authority (HUD)

PJ—Pacific Jurisdictions (American Samoa, Commonwealth of the Northern Mariana Islands, Guam)

PR—Commonwealth of Puerto Rico

PSA—Planning and Service Area

RAC—Rural Assistance Center

Region I—Includes: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, and Vermont

Region II—Includes: New Jersey, New York, Puerto Rico, and U.S. Virgin Islands

Region III—Includes: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia Region IV—Includes: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina,

Region V—Includes: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin Region VI—Includes: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas

Region VII—Includes: Iowa, Kansas, Missouri, and Nebraska

Region VIII—Includes: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming Region IX—Includes: Arizona, California, Hawaii, Nevada, and U.S. Associated Pacific Basin

Region X—Includes: Alaska, Idaho, Oregon and Washington

RMI—Republic of the Marshall Islands

RP—Republic of Palau

and Tennessee

SAMHSA—Substance Abuse and Mental Health Services Administration

SDH—Social Determinants of Health

SES—Socioeconomic Status

SIDS—Sudden Infant Death Syndrome

SOMH—State Office of Minority Health

South Region—Includes: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas

Title VI—Title VI of the Civil Rights Act of 1964 and its implementing regulations Unequal Treatment

Report—Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (IOM Report)

URAC—Utilization Review Accreditation Commission

US—United States

USDA—U.S. Department of Agriculture

USVI—U.S. Virgin Islands

West Region—Includes: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington

WHO—World Health Organization